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ABSTRACT

This study examines the feasibility of establishing a centralized bibliographic service for the Resource Materials Centres (RCM) of the Colleges of Technical and Further Education (TAFE) in Queensland, Australia. It examines the context in which services can operate, and possible functions. The organizational aspects of TAFE in planning, budgeting, purchasing, maintainance, curriculum development, and program evaluation are considered in a systems approach, emphasizing the importance of quality, quantity and continuous evaluation. Although cost-effectiveness cannot be assessed, future perspectives, as well as advantages and disadvantages of North American systems, are applied to Queensland TAFE. Sections cover: (1) the concept of enlarged centralized service; (2) the client; (3) the State RCM objectives for effective functioning; (4) tasks to achieve objectives; (5) tasks in acquisitions, technical services, production, and resource collections; (6) proposals for automation of acquisitions and technical services; and (7) future research directions. A selected bibliography is attached. (KP)

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ED139379

The Feasibility and Advisability of Providing a Centralized Bibliographic Service for TAFE in Queensland

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Preface

In Volume 1 of *TAFE in Australia: Report on Needs in Technical and Further Education* (ACOTAFE 1974, p. 00) the Committee recommended that:

'The States should be assisted financially to carry out feasibility studies and cost-benefit analyses of the establishment of bibliographic centres, and submit any resulting proposals. $20,000 each should be granted to New South Wales and Victoria for the purposes, $15,000 each to Queensland, South Australia and Western Australia, and $10,000 to Tasmania.'

This study, initiated in response to the above recommendation, examines the feasibility and advisability of establishing a centralized bibliographic service for the Resource Materials Centres of the Colleges of Technical and Further Education throughout Queensland. It examines, too, the context in which this service might operate and the variety of functions which might be seen as the responsibility of the State Resource Materials Centres, now and in the short and long term.

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Conclusions and Recommendations

1 In most Australian states, the consideration of establishing a centralized bibliographic service for the Colleges of Technical and Further Education must involve an assessment of

(i) the current method of organizing bibliographic services;

(ii) a proposed method; and

(iii) an assessment of the costs involved in any proposed changes.

The TAFE system of Queensland, however, is in a unique position, because it is in the beginning stages of the provision of resources for the Resource Materials Centres (RMCs) of the TAFE Colleges, and of the necessary supporting services.

Therefore, the most efficient and effective method of providing for these bibliographic needs, and the suitable supporting services, may be determined without the need to consider an existing system and the constraints which would ordinarily accompany it.

2 It is evident that a consideration of the advisability of establishing a centralized bibliographic service for the TAFE Colleges of Queensland will entail a consideration of both the quantitative and qualitative

aspects of the problem. It might well be that the qualitative aspects prove to be the significant factors affecting a solution to the problem.

3 The feasibility of establishing centralized bibliographic services would seem to be supported by the proportion of functions in the TAFE system in Queensland which are already centralized. The possibility of utilizing these established functions in organizing centralized bibliographic services, and the opportunity to make staffing decisions in accordance with system-wide functions, would seem to further support the feasibility of establishing a centralized service. The problem of obtaining agreement on a standardized procedure among RMCs is not applicable since only one RMC has organized its holdings.

The cost-effectiveness of centralization versus decentralization cannot be realistically assessed within the TAFE system in Queensland. A review of the literature relating to the experiences of other systems will assist in determining expected advantages and disadvantages of the centralized and decentralized provision of bibliographic services.

4 The determining of a preferred future for mankind, the education system, the TAFE system in Australia and the TAFE system in Queensland should be the basis upon which choices relating to bibliographic services are made. This preferred future may be discerned by examining the philosophies, aims and objectives of these systems. Choices made now should be consistent with the preferred future but also flexible so that a number of good choices are preserved for the future which, by its very nature, is uncertain.

5 A review of North American experiences in the operation of centralized bibliographic services reveals that a centralized bibliographic service

(a) is likely to be more effective than a cooperative service;

(b) is likely to be cost-effective;

(c) is likely to provide a high quality service;

(d) is likely to bring additional unexpected benefits;

(e) is likely to increase the effectiveness of the library service to users of the individual libraries;

(f) will allow the use of the computer to improve processing times and to further increase the quality of the service.

6 Research findings which relate to library systems in North America may be usefully applied to the Queensland TAFE system if care is taken to provide for the factors which differ.

Factors which should be carefully considered relate to:

(a) the nature of the holdings;

(b) homogeneity of standards;

(c) frequency of orders and cash flow;

(d) facilitating or obstructing factors in the Queensland TAFE system;

(e) availability of professional and para-professional staff;

(f) professional expectations of central and College RMC staff;

(g) additional benefits to College RMCs;

(h) possibility of computerization.

Additional advantages which may be anticipated in centralizing bibliographic services relate to the need for a state-wide balanced development of RMCs and their holdings. The rationalization of resources and the

effective use of funds are most easily achieved through a centralized bibliographic service.

If methods which have proven to be both feasible and cost-effective in North America are applied to the circumstances prevailing in Queensland, it is considered that the centralized bibliographic service for the TAFE system in Queensland will prove to be both feasible and cost-effective.

The additional advantages which relate to an increased quality in reader service and to the facilitating of student learning support the advisability of establishing this service.

It is recommended, therefore, that the State Resource Materials Centre provide for the RMCs of the TAFE colleges in Queensland, a centralized bibliographic service which will include

(a) acquisition of all learning resources; and

(b) technical services which will

(i) prepare the learning resources for use in the college RMCs; and

(ii) facilitate system-wide and national resource sharing.

7 The concept of an enlarged centralized service is concerned with discovering the services which may be incorporated into the function of the State RMC to provide for the qualitative aspects necessary to the provision of learning resources for the colleges.

It is considered that the following functions are important aspects of the provision of learning resources to the colleges and should be provided by the State RMC in addition to the centralized services of acquisitions and technical services:

(a) Selection advisory service for learning resources;

(b) Selection advisory service for A/V hardware;
(c) Centralized acquisition of A/V hardware;
(d) Centralized maintenance of A/V hardware;
(e) Advisory service for furnishings and accommodation;
(f) Centralized acquisition of furnishings;
(g) RMC administration advisory service;
(h) Resource Collection and information retrieval service;
(i) Network collection and exchange service;
(j) Production and reproduction service;
(k) Production advisory service;
(l) Research and evaluation services;
(m) Staff in-service;
(n) Publicity and public relations;
(o) Assessment of future needs.

8 The provision of resources for the College RMCs will be handled by the State RMC in response to a requisition from the colleges.

The selection of resources to be provided for a College RMC is a responsibility which the *entire staff of a college* shares with the State RMC. It is made in response to needs and in accordance with priorities established in relation to funds available. Selection aids will be developed by the State RMC to assist college staff.

Decisions regarding purchase, exchange, or production will depend upon availability and selection criteria.

The State RMC will facilitate the process by providing advisory services to colleges.

9 The aims and objectives of the State RMC have been determined to provide the orientation and specific guidelines necessary for the effective functioning of the Centre.

Care has been taken to ensure that they are consonant with the aims and objectives of the Curriculum and Evaluation Section (of which the Centre is a part), the TAFE system in Queensland, and the TAFE system in Australia. In addition it is recognized that the aims and objectives must allow the Centre to function as an integral part of the education system of Queensland.

10 The tasks are the means by which the aims and objectives of the State RMC will be achieved. The extent to which the aims and objectives are achieved will be evaluated by using the evaluation tools specified, with reference to the predetermined standards.

11 While recognizing the integrated nature of many of the tasks and the consequent overlap which is not only unavoidable but advantageous, it is considered that the tasks will be most effectively performed by organizing the division of responsibilities into four sections - Acquisitions, Technical Services, Production and Resource Collection.

The extent to which the tasks are facilitating the achievement of the aims and objectives must be constantly evaluated in the light of changing needs. This evaluation will provide the feedback necessary for the implementation of changes in the task itself, or in the organizing of the tasks within and between the sections.

12 Automation of Acquisitions functions will facilitate efficient placement of orders and will provide up-to-date analyses of commitments and expenditures. Staff will be alerted to oversupply and outstanding orders.

Automation of cataloguing procedures will ensure that materials are processed speedily and that all cataloguing

data are held in the standardised Australian MARC format. Up-to-date records of all resources held in all colleges will be maintained.

Through automation, the time required to complete technical tasks will be significantly reduced.

13 Futures research is likely to be most effective if it attempts to assess possible and preferred futures in the 5 to 20 years time frame. If policy decisions are flexible and open-ended, then future choices in line with future needs will be available.

Continuous evaluation of the role and services of the State RMC, through the organization of suitable feedback, will allow the Centre to judge the extent to which they need to be adjusted to reflect the aims and objectives of the TAFE system in Queensland.

Contents

	Preface	(i)
	Acknowledgements	(ii)
	Conclusions and Recommendations	(iii)
1	Introduction	1
2	A Centralized Bibliographic Service	6
3	A Systems Approach to the Problem	9
4	A Futures Perspective	13
5	The Feasibility and Cost-Effectiveness of Centralizing Certain Bibliographic Functions: A Review of the Literature	16
6	The Application of Research Findings to the Queensland TAFE System	22
7	The Concept of an Enlarged Centralized Service	30
8	A View from the Colleges	35
9	The Aims and Objectives of the State Resource Materials Centre	41
10	The Tasks: The Sharing of Responsibilities for the Achievement of the Aims and Objectives	46
11	The Tasks: Organization for Performance	62
	A Acquisitions	62
	B Technical Services	68
	C Production	80
	D Resource Collection	85
12	Proposals for the Automation of Acquisitions and Technical Services Operations	89
13	The Future	95
14	Selected Bibliography	97

Tables

Table 1	RMC Facilities and Staffing	2
Table 2	Resource Holdings - December, 1975	3
Table 3	The Relationship of State RMC Objectives to the Sections of the State RMC	4

Figures

Figure 1	Provision of Resources for College RMCs	46
Figure 2	State Resource Materials Centre: Organizational Structure	48
Figure 3	Acquisitions Flow Chart	64
Figure 4	Technical Services Flow Chart	65

1 Introduction

The Technical Education Branch is in the process of setting up a network of Resource Materials Centres (RMCs) for the Colleges of Technical and Further Education throughout the State.

In the colleges and annexes where a permanent RMC does not already exist, an interim RMC has been established in temporary quarters to serve the needs of the students until a building programme is able to provide permanent accommodation.

As Table 1 indicates, the College of Art is the only TAFE College which has permanent RMC facilities. The building programme for provision of permanent facilities for some of the other colleges and annexes is in the planning stage. Anticipated completion dates for some permanent RMCs has been determined. The temporary space for the interim RMCs averages the equivalent of two classrooms.

As Table 1 also indicates, the College of Art is the only permanent or interim RMC to which any staff has been appointed, and which is therefore able to function.

The holdings at December 31, 1975 were almost non-existent (see Table 2) and, except for the College of Art, the materials which did exist were not held in a central

Table 1 **RMC Facilities and Staffing**

College or annexe	Existing Permanent RMC	Permanent RMC anticipated completion date	Interim RMC	RMC staff
Albion Annexe			X	
Bundaberg College of Technical and Further Education			X	
Cairns College of Technical and Further Education		Jan 1980	X	
College of Art	X			2
Eagle Farm Technical College		Jan 1979	X	
Gold Coast College of Technical and Further Education			X	
Gympie Further Education Centre			X	
Ipswich Technical College		Jan 1980	X	
Ithaca Technical College			X	
Kangaroo Point Technical College			X	
Mackay Technical College			X	
Maryborough Technical College			X	
Maryborough Hall of Residence			X	
Mount Isa Technical College			X	
Rockhampton Technical College			X	
School of Catering and Hospitality			X	
Seven Hills Annexe			X	
South Brisbane Technical College			X	
Technical Correspondence School			X	
Toowoomba Technical College			X	
Townsville Technical College			X	
Yeronga Technical College		Sept 1978	X	

Table 2 **Resource Holdings - December 1975**

Colleges or annexe	Books	A/V Items or Sets	Periodical Subscriptions
Albion Annexe	-	-	-
Bundaberg College of Technical and Further Education	1,050	86	15
Cairns College of Technical and Further Education	430	21	61
College of Art	4,145	642	91
Eagle Farm Technical College	1,040	58	11
Gold Coast College of Technical and Further Education	68	633	-
Gympie Further Education Centre	-	-	-
Ipswich Technical College	1,000	-	26
Ithaca Technical College	600	45	15
Kangaroo Point Technical College	2,497	316	30
Mackay Technical College	900	42	13
Maryborough Technical College	-	-	-
Maryborough Hall of Residence	390	3	3
Mount Isa Technical College	490	-	-
Rockhampton Technical College	380	-	5
School of Catering and Hospitality	27	-	3
Seven Hills Annexe	1,000	4	4
South Brisbane Technical College	2,067	13	28
Technical Correspondence School	187	34	30
Toowoomba Technical College	1,318	109	7
Townsville Technical College	1,280	6	8
Yeronga Technical College	1,179	73	19

location; neither were they organized in any way. The College of Art holdings at that time were organized and were classified under the Dewey Classification System, but were available to students for reference only within the library. No borrowing system had been instituted.

The State Resource Materials Centre was established early in 1976 as part of the Curriculum and Evaluation Section of the Technical Education Branch, to facilitate the provision of learning resources for the RMCs of the Technical Colleges throughout Queensland. During the year the first appointments of professional staff to the State Resource Materials Centre for TAFE have been made. They comprise:

Principal Education Officer	appointed to organize and oversight all aspects of library development, including all College RMCs for TAFE and the State RMC for TAFE.
Supervisor of Technical Libraries	appointed to (a) assist the Principal Education Officer in the operation and administration of the State RMC; (b) coordinate the planning and development of College RMCs for TAFE; (c) facilitate the integration of the resources into the educational programmes of the various colleges.
Education Officer I (Graphics)	appointed to provide a design service for the preparation of multi-media learning materials for the College RMCs for TAFE and for the State RMC for TAFE.
Library Advisor (Orders)	appointed to provide a centralized ordering service for the purchase of book and non-book materials, audio-visual equipment and furnishings for the RMCs of the TAFE Colleges and for the State RMC for TAFE.

Library Advisor (Cataloguing)	appointed to provide a centralized cataloguing service for book and non-book materials for the College RMCs for TAFE and for the State RMC for TAFE.
Librarian (Cataloguing)	appointed to assist the Library Advisor (Cataloguing) in the provision of a centralized cataloguing service for book and non-book materials for the College RMCs for TAFE and for the State RMC for TAFE.

The ways in which these staff members should be involved in the functions of the State RMC with respect to the provision of a centralized bibliographic service will be explored in this study.

Conclusion

In most Australian states, the consideration of establishing a centralized bibliographic service for the Colleges of Technical and Further Education must involve an assessment of

(i) the current method of organizing bibliographic services;
(ii) a proposed method; and
(iii) an assessment of the costs involved in any proposed changes.

The TAFE system of Queensland, however, is in a unique position, because it is in the beginning stages of the provision of resources for the Resource Materials Centres (RMCs) of the TAFE Colleges, and of the necessary supporting services.

Therefore, the most efficient and effective method of providing for these bibliographic needs, and for suitable supporting services, may be determined without the need to consider an existing system and the constraints which would ordinarily accompany it.

2 A Centralized Bibliographic Service

The suggestion that a centralized bibliographic service be established in each State was proposed in the April 1974 report of ACOTAFE, *TAFE in Australia.*

The proposal was made because

'*The Committee was concerned to note during its visits to the colleges the high proportion of library staff time taken up by routine acquisitions, cataloguing and processing activities at the expense of reader service work.*' (p. 99)

It was therefore envisaged that a bibliographic centre which offered

'*Centralized acquisitions and cataloguing services, particularly in Tasmania, South Australia, Queensland and Western Australia, would offer considerable advantages both to individual colleges and to the TAFE authorities generally.*' (p. 99)

It was proposed that a State TAFE centre could provide the following facilities

'*(a) a centralized acquisition service*

(b) a centralized cataloguing service

(c) a State Union Catalogue of print and non-print materials

(d) a centralized inter-library loan service.'

and that the establishment of a Central Bibliographic Centre for each state could be

'justified on the grounds of both efficiency and economy.' (p. 99)

The justification for this proposal could, in most states, be established through a study which examines the feasibility of coordinating existing bibliographic operations and which examines the cost-effectiveness of this coordination.

In fact, such a study has already been carried out in most states (see Selected Bibliography). In all cases, the feasibility and cost-effectiveness of a coordinated approach to the provision of bibliographic services was established, though the question of whether this coordination should be limited to the TAFE Colleges has been raised in some instances.

A decision regarding the advisability of establishing centralized services not only involves the question of the degree of cost-effectiveness and feasibility required by the system in quantitative terms but also a consideration of the qualitative factors relating to coordination and cooperation within the system and between systems.

In other countries, particularly the United States and Canada, similar studies have been conducted and the feasibility and cost-effectiveness of providing a coordinated service have been established. In some cases, the on-going evaluation of the implementation of the decision to coordinate had demonstrated that the 'difficult to define' qualitative aspects may either impede or facilitate the implementation of a policy decision, but in any case, should not be overlooked.

Qualitative considerations which were mentioned in the *1974 ACOTAFE Report* involved the gains expected in reader assistance and reader education in the College LMCs as a result of releasing librarians from bibliographic responsibilities which could effectively be handled on a centralized basis.

Further consideration of qualitative factors by the TAFE Commission has resulted in an extension of the suggested functions of a bibliographic centre as stated in the *Report for the Triennium 1977-1979.* In addition to the services enumerated in the *1974 ACOTAFE Report* the following function was suggested:

'a learning resource evaluation service to include -
(i) identification and acquisition of commercially available learning resources, principally non-book materials;
(ii) critical evaluation of all materials acquired;
(iii) reporting evaluations to all TAFE libraries in the state;
(iv) making materials available for inspection by TAFE librarians and teaching staff.

Colleges should be encouraged to report to the centre audio-visual materials of proven value produced within the colleges within the state.' (p. 183)

Conclusion

It is evident that a consideration of the advisability of establishing a centralized bibliographic service for the TAFE Colleges of Queensland will entail a consideration of both the quantitative and qualitative aspects of the problem. It might well be that the qualitative aspects prove to be the significant factors affecting a solution to the problem.

3 A Systems Approach to the Problem

In determining the best approach to take in seeking a solution to a policy decision, it is vitally important that the *system* be viewed as a *whole*, and that the relationship of the various parts be considered in seeking that solution.

It is suitable, for our present purposes, to define the boundary of the system such that we may consider the TAFE system in Queensland as *the whole;* although it must, at the same time, be recognized that there will be occasions where the education system of Queensland or the TAFE system of Australia be viewed as *the whole*.

For example, this study, in seeking to determine the feasibility and advisability of establishing centralized services for TAFE in Queensland, will examine that system. If, as the *TAFE Bibliographic Centre Feasibility Study: Tasmania* (Champion de Crespigny, 1976) concluded, the services would be best provided for an integrated service for all sectors of the Education Department, then the education system would be considered as *the whole*.

In examining organizational aspects of the TAFE system in Queensland as it operates at present, we note that the system is characterized by its centralized approach.

A description of the system would include the following:

(a) centralized organizational planning;

(b) centralized budgeting and accounting procedures;

(c) centralized purchasing of all items for the college;

(d) centralized maintenance and dispatch system;

(e) centralized recruitment, promotion and transfer of staff;

(f) centralized curriculum and course development;

(g) centralized programme evaluation;

(h) centralized organization of student assessment and accreditation;

(i) centralized advisory service;

(j) centralized planning for building and accommodation;

(k) centralized teacher preparation and organization of in-service activities;

(l) centralized organization of community participation in policy-making;

(m) centralized collection and collation of statistical data.

The system is therefore not only geared to the provision of centralized services, but the expectations of staff are likely to be such that centralized services with respect to the provision of learning resources will be accepted as a natural extension of the present system.

If the provision of centralized bibliographic services were to prove to be feasible, there would seem to be additional advantage in using the already established services as part of the proposed bibliographic service, especially in the areas of purchasing, accounting, maintenance, dispatch, budgeting, staffing, teacher-preparation, in-service and the collection and collation of statistical data.

It could be claimed that, because the College RMCs have no Resource Centre staff, there is no feasible alternative to a centralized service. However, the question of staffing the RMCs should only be considered as a temporary constraint which must be removed if the system is to function at all, whether or not the decision to centralize is taken.

The fact that College RMC staff has not yet been appointed could be seen as an advantage in that the decisions regarding staff for the RMC system as a whole can be taken after considering the integrated nature of functions and the most effective use of staff with respect to these functions.

Because the RMCs have such small holdings, and these holdings have not been organized, except in the case of the College of Art, the problem of obtaining agreement among participants regarding standardization of procedures for ordering and processing resource materials will not arise.

In Queensland, because RMCs have not been established until this year, it is not possible to conduct a realistic assessment of the cost-effectiveness of the centralized versus the decentralized organization of the various bibliographic functions. A review of the literature which describes the experiences of other systems that have established centralized services and compares the results with a previously decentralized organization will assist in determining the factors for and against establishing a centralized service.

Conclusion

The feasibility of establishing centralized bibliographic services would seem to be supported by the proportion of functions in the TAFE system in Queensland which are already centralized. The possibility of utilizing these established functions in providing centralized, bibliographic services, and the opportunity to make staffing decisions in accordance with system-wide functions, would seem to further support the feasibility of establishing a centralized service. The problem of obtaining agreement on a standardized procedure among RMCs is not applicable since only one RMC has organized its holdings.

The cost-effectiveness of centralization versus decentralization cannot be realistically assessed within the TAFE system in Queensland. A review of the literature relating to the experiences of other systems will assist in determining expected advantages and disadvantages of the centralized and decentralized provision of bibliographic services.

4 A Futures Perspective

Policy making

New policies are not really intended to completely solve problems. They are designed to overcome some difficulties and move closer to certain accepted aims. They are continually being shaped through implementation.

So it is with the development of policies which will provide for bibliographic services for the colleges. However, if policies are developed through the use of strategic planning, they are more likely to be successful.

Strategic planning

Strategic planning is defined by Peter Drucker as *'the continuous process of making present entrepreneurial (risk-taking) decisions systemically and with the greatest knowledge of their futurity; organizing systematically the efforts needed to carry out these decisions, and measuring the results of these decisions against the expectations through organized, systematic feedback'*. (Drucker, 1973, p. 125).

Futures research

This knowledge of futurity may be obtained through futures research which seeks to provide the information necessary for the rational selection of present actions so that an anticipated and preferred future will be produced.

Possible futures

An examination of *past trends* and possible future changes will produce a wide range of alternate futures which are *possible* but not necessarily likely or *preferred*.

A preferred future

In planning for a *preferred future* we need to probe methods of values assessment, the democratic process, and the problem of diverse values as well as the questions of Who should the system serve? and Who will decide?

Uncertainty

However, we can never be certain about the future. There will always be unexpected occurrences and unanticipated events. This uncertainty can be provided for by building flexibility into our method of making choices - by always taking care to choose an action which is consistent with the preferred future, but one which will also preserve a number of good choices for the future.

It is of utmost importance, therefore, that the *preferred future* for mankind, for the education system, for the TAFE system in Queensland, be the basis upon which choices relating to bibliographic services are made.

Philosophies, aims and objectives

A description of this preferred future may be obtained by examining the philosophies, aims and objectives of those systems.

Conclusion

The determination of a preferred future for mankind, the education system, the TAFE system in Australia and the TAFE system in Queensland should be the basis upon which choices relating to bibliographic services are made. This preferred future may be discerned by examining the philosophies, aims and objectives of those systems. Choices made now should be consistent with the preferred

future but also flexible so that a number of good choices are preserved for the future which, by its very nature, is uncertain.

5 The Feasibility and Cost-Effectiveness of Centralizing Certain Bibliographic Functions: A Review of the Literature

Feasibility and advisability

In our examination of *possible* futures it is necessary to establish whether or not the centralization of any bibliographic function is feasible. We must bear in mind, however, that to establish *feasibility* only establishes that the choice is *possible*. The *advisability* of establishing a centralized service will relate to the *preferred future*, which, by its very nature, involves value judgements.

In this chapter, the feasibility and cost-effectiveness of establishing centralized bibliographic services is examined by reviewing the experiences of systems in North America.

Cooperative schemes

In North America many schemes, both cooperative and centralized, have been devised to provide a more efficient method of accomplishing the tasks involved in bibliographic processing.

In most cases (see Cox, 1955) the centralized processing plan has been more successful than the cooperative plan because it

'eliminates much duplication of work, tends to ensure consistency of product, and usually results in a better coordination of service.' (Cox, 1955, p. 357).

Centralized processing

In summarizing the experiences of some North American library systems (including New York State, Missouri, Ohio, California and Toronto) which have centralized their bibliographic services, Piercy (1964, p. 199) lists the following advantages:

'*(1) in purchasing books (higher discount, more consideration by the dealer, approval and return privileges etc.);*

(2) economy for all in eliminating duplication of tasks (e.g., cataloguing the same title but once for many libraries);

(3) availability of needed bibliographic professional tools (too expensive for each library to have);

(4) assurance of having the work done expertly and uniformly (thus aiding the user going from library to library);

(5) advantageous buying of supplies in large lots;

(6) saving time and labor by utilizing machinery, equipment, and physical space too expensive for individual libraries;

(7) better development and training of personnel, and providing staff specialization and promotional opportunities in the work;

(8) elimination of duplicate records, such as authority files; and

(9) installation of better work planning and management.'

Additional gains

Centralized processing requires a cooperative effort. This cooperation usually results in unanticipated gains through:

'*(1) exchanging and pooling of information and experience;*

(2) planned resources building;

(3) establishing bibliographic centers;

(4) compiling union lists;

(5) exchanging personnel and materials;

(6) establishing deposit or storage centers for lesser-used materials;
(7) inter-library lending of materials; and
(8) pooling efforts in research and studies of procedures and problems.' (Piercy, 1964, p. 199).

Two additional advantages noted by Cox (1955, p. 337) are that:
(1) library staff are freed from detailed work for employment in other areas;
(2) resources are made more readily available to participating libraries through location devices (e.g. Union Catalogues) and resource sharing systems.

When centralized services were introduced in Missouri, participating libraries reported that they would use released time of professional and clerical staff to:
'(1) give added reference services;
(2) spend more time on book selection;
(3) spend more time on materials control;
(4) enlarge the service area using the same staff;
(5) provide added services to the library not now possible because of lack of time;
(6) improve accessibility of materials through uniformity of procedures;
(7) provide for in-service training of non-professional staff members;
(8) give additional attention to administrative duties including constant attention to more efficient operation;
(9) devote more attention to the condition and evaluation of the quality of the collection;
(10) place ephemeral material in usable condition;
(11) extend public relations program of the library.'
(Dennis, 1957)

It has not been recorded whether or not these expected advantages were ever achieved in the Missouri library system.

Warnings: possible disadvantages

Two warnings given by Piercy (1964, p. 99) involve homogeniety and size:

'(1) The libraries must have a degree of homogeniety else the type of service may not be appropriate. (2) There is a point of bigness beyond which more is lost then gained in efficiency. No one has yet determined at what point of expansion these breaks occur.'

Cox (1955, p. 258) adds to the list by warning of:

'the potential disadvantage of delay in getting books to the library. A cataloguer cannot do an adequate job without the book in hand and unless ordering can be centralized...there exists the possibility of the operation being too slow.'

Riggs (1975, p. 2) agrees that centralized services should include both cataloguing and acquisitions activities and, in that case, the time lag would probably occur only in the first six months of operation.

Cost-effectiveness

Mullins (1958, p. 172) warns that anticipated savings may not occur, and they certainly will not occur during the first six months of operation due to the necessary major capital outlay, *'but there is expected to be more and better service for the same expenditure'.*

However, Kurtz (1970) reported that the processing centre at the Rhode Island Department of State Library Services found that although the initial unit processing costs were high, the unit costs began to decline as the work flow improved, steps were eliminated and the staff became better trained. During the first four months of

operation, the unit cost for processing was $2.9105 per book. After another six months, the unit cost was down to $2.224. The decrease occurred despite a rise in all operating costs and the appointment of additional staff.

A study by Roundtree (1970) on the Louisiana State Library Processing Center supported the claim that centralized processing can be more economical than independent processing. The first year of operation showed a saving of 3.8% on the overall book budget.

In analysing the costs of processing materials for the library, Gipson (1967) suggests that the following items are relevant: materials cost, personnel cost, equipment cost, supplies cost, and area cost. However, each of these items contains some hidden costs which will be revealed when the operation is under-way.

Standardized times

One of the problems which still exists in the operations of centralized processing is that although the costs normally increase annually, the time to complete the technical services does not decrease significantly over time. However, the use of the computer in technical processes will be significant in achieving reduction in time.

Computer

But the achievement of an economic reduction in time taken on bibliographic processes through automation is only possible if the processes are centralized.

At the same time, the use of the computer will open up vast additional benefits in the area of information retrieval.

Colorado study

In reporting the results of a study of the first six months of operation of a centralized book processing

centre in Colorado, Dougherty and Maier (1971, p. 119) support the claim that centralized processing can be cost-effective, and that the time required to acquire and catalogue materials can be reduced.

Peak loads

However, they warn (1971, p. 114) that occurrence of peak periods in ordering and cataloguing will cause bottle-necks and production delays accompanied by inefficient use of staff. This system suggests that users be persuaded to order during the 'off-season' periods and that the centre establish a mobile personnel pool so that staff can be transferred to where they are needed.

Conclusion

A review of North American experiences in the operation of centralized bibliographic services reveals that a centralized bibliographic service

(a) is likely to be more effective than a cooperative service;

(b) is likely to be cost-effective;

(c) is likely to provide a high quality service;

(d) is likely to bring additional unexpected benefits;

(e) is likely to increase the effectiveness of the library service to users of the individual libraries;

(f) will allow the use of the computer to improve processing times and to further increase the quality of the service.

6 The Application of Research Findings to the Queensland TAFE System

Results of research relating to one or more systems can never be applied 'as is' to another system; they must be adapted quantitatively and qualitatively to the particular system.

This need for careful adaptation applies to systems where a great deal of similarity can be shown, but applies to a much greater extent, to systems in which basic purposes differ.

In some cases, the differences between the systems can be discovered through a comparison of the aims and objectives of the systems. However, we often find that system aims and objectives have not been specified, and another means of comparison must be found.

Factors which could affect the transferability of experience in the establishment and functioning of a centralized bibliographic service from one system to another are:

(a) the nature of holdings. Different operating conditions prevail between a service which handles only books and one which handles a mixture of print and non-print materials, including multi-media packages, charts, realia and human resources.

(b) homogeneity of standards and methods of ordering and processing among the client institutions;
(c) frequency of orders and cash flow;
(d) aspects of the wider system which could facilitate or obstruct a centralized acquisitions and processing service;
(e) availability of professional and para-professional staff;
(f) professional expectations of central and College RMC staff;
(g) advantages which are expected to be gained through College RMC staff being relieved of the ordering and technical processing responsibilities;
(h) the developmental stage of computerized services.

Differences in holdings

The 'differences in holdings' is a most important factor to consider when assessing the transferability of the research findings relating to centralized bibliographic services of United States and Canadian library systems. These systems were only concerned with ordering and processing books. A centralized bibliographic service which will serve the College RMCs of Queensland will be concerned with learning resources of all kinds - books, periodicals, pamphlets, audio-visual software, multi-media packages, charts, maps, realia, games and human resources.

The North American research findings quoted in the last chapter did not relate to systems processing this wide variety of learning resources, and did not deal with the special problems which accompany the ordering and processing of these resources.

Problems peculiar to the handling of non-print media arise out of the following factors:
(a) There is difficulty in obtaining materials from

suppliers for preview by college staff and State RMC staff.

(b) The high cost of each item of non-print media makes it imperative that items are previewed and selected carefully to be sure that they will effectively support the learning needs of the students.

(c) Different procedures must be instituted in a centralized service for the receipt and checking of audio-visual software. This involves the use of specially provided A/V electrical equipment and specially trained staff.

(d) Previewing by College staff and State RMC staff must be carried out where the A/V electrical equipment is located.

(e) Special procedures and specially trained staff are required for the cataloguing of non-print media.

(f) Special attention must be given to the packaging of audio-visual materials so that they can be placed on the shelves amongst the print materials. Processing procedures different from those used for print materials must therefore be instituted.

(g) Different methods of processing, especially for labelling, and in preparing the item for borrowing, are required for non-print media.

(h) Special arrangements must be made for the processing of non-print materials which are obtained or produced locally.

These factors make it much more difficult to establish an economic operation in terms of the cost of processing materials and the time spent in processing each item.

However, it is important, if a centralized bibliographic service is established, that all learning resources are acquired and processed by the service. This will allow a consistent approach to the provision of learning resources to be established.

Homogeneity of standards

The ease with which an agreed-upon standard of ordering and processing may be established between the participating RMCs will determine the feasibility of the centralized operation and will eventually determine the effectiveness. This problem is not one which affects the Queensland RMCs as has already been shown.

Avoidance of peaks

The cost-effectiveness of a centralized bibliographic operation is very dependent upon a continuous even flow of orders coming from the College RMCs. This factor was demonstrated in the experiences of the Colorado Academic Libraries Book Processing Centre (see Chapter 5) and is equally applicable to a Queensland operation. If central staff are to be employed in a cost-effective manner, funds must be available for college spending throughout the entire year and colleges must be encouraged to place smaller orders at frequent intervals so that peaks and troughs in work-load are avoided as much as possible.

The wider system

The library systems of North America which have been discussed were characterized by a decentralized operation before the decision to centralize bibliographic functions was taken. This change required adaptation on the part of each library so that a standardized method of ordering and processing could be achieved. It required, in addition, quite major changes in the job descriptions of the staff, from a position which entailed quite a number of bibliographic processing tasks to one which involved much more reader service and reader education orientation. In Queensland, this transition is not necessary because staff have not yet been appointed, and in addition, the system as a whole is characterized by its centralized mode of operation (see Chapter 3). In fact, the centralized operations which are already functioning will facilitate a centralized bibliographic service with

respect to college staff expectation and in the operational areas of purchasing, accounting, maintenance, dispatch, budgeting, staffing, teacher-preparation, in-service and the collection and collation of statistical data.

Staff

The ACOTAFE and TAFEC reports have recognized the difficulty of obtaining qualified staff on the professional and para-professional levels in Australia. This fact would support the establishment of a centralized bibliographic service which would allow a few qualified staff to be fully utilized in the service of the whole system.

Professional staff expectations

No mention of the question of professional staff expectations has been made in the research literature. However, this factor could be very influencial in determining the success or failure of a centralized bibliographic service.

If the expectations of professionally qualified staff in the College RMCs were not realized because the bibliographic aspects of the job were handled elsewhere, staff could become dissatisfied. It is essential that the preparation of RMC College staff (including qualifications and expectations) be closely related to the work they will be expected to do. Although a working knowledge of bibliographic practices is essential, special professional qualifications in bibliographic practices would be better used in the State RMC. On the other hand, College RMC staff need to be capable in the areas of reader service and reader education and must have an excellent understanding of the needs of the adult learner so that they may facilitate student learning. Understanding of the educative proce[illegible]d of the curriculum will allow RMC staff to [illegible] teaching

staff of the college to effectively incorporate learning resources into the curriculum and to effectively select resources which will satisfy the individual student's learning needs.

Additional benefits

When the College RMC staff are relieved of the duties relating to bibliographic services, the 'specially prepared' staff will be capable of effectively carrying out the reader service duties which were expected to be substituted in the Missouri Library System (see Chapter 5), and other learner facilitating services which would be needed in the TAFE colleges in Queensland. This *role change* will allow *properly prepared staff* to improve the qualitative aspects of the RMC service.

Computer use

Research findings in North America indicated that speed and effectiveness of the centralized bibliographic service could be increased through the use of the computer. This factor is only transferable if the Queensland system is able to afford the initial expense of setting up the programme. Chapter 12 details the programme which is being established in cooperation with the State Library of Queensland to computerize the processes of acquisition and cataloguing.

Balanced state-wide development

Rationalization of resources

Resource sharing network

National network

Another advantage of a centralized bibliographic service for Queensland, involves the need for the state-wide balanced development of RMCs and their holdings and for the most effective use of funds through the rationalization of resources. This can only be achieved through centralized planning and through the development of a resource sharing network involving the production of a State Union Catalogue. In fact, the concept may be extended to the development of a National Resource Sharing Network which will provide for

(a) the exchange of material for preview purposes;

(b) the borrowing of materials used very occassionally;
(c) the free reproduction of learning resources developed in another state;
(d) the exchange of the results of research being conducted in the various states.

Conclusion

Research findings which relate to library systems in North America may be usefully applied to the Queensland TAFE system if care is taken to provide for the factors which differ.

Factors which should be carefully considered relate to:
(a) the nature of the holdings;
(b) homogeneity of standards;
(c) frequency of orders and cash flow;
(d) facilitating or obstructing factors in the Queensland TAFE system;
(e) availability of professional and para-professional staff;
(f) professional expectations of central and College RMC staff;
(g) additional benefits to College RMCs;
(h) possibility of computerization.

Additional advantages which may be anticipated in centralizing bibliographic services relate to the need for a state-wide balanced development of RMCs and their holdings. The rationalization of resources and the effective use of funds are most easily achieved through a centralized bibliographic service.

If methods which have proven to be both feasible and cost-effective in North America are applied to the circumstances prevailing in Queensland, it is considered that the centralized bibliographic service for the TAFE system in Queensland will prove to be both feasible and cost-effective.

The additional advantages which relate to an increased quality in reader services and to the facilitation of student learning support the advisability of establishing this service.

It is recommended, therefore, that the State Resource Materials Centre provide for the RMCs of the TAFE colleges of Queensland, a centralized bibliographic service which will include:

(a) acquisition of all learning resources, and

(b) technical services which will

(i) prepare the learning resources for use in the College RMCs, and

(ii) facilitate system-wide and national resource sharing.

7 The Concept of an Enlarged Centralized Service

While the advisability of establishing centralized bibliographic services is related primarily to the acquisitions and technical services functions already discussed, it is profitable to consider whether there are any other services necessary for the effective operation of the RMC sub-system, or services which could be advantageously incorporated into the functions of the State RMC.

It has been argued (see Chapter 2) that the qualitative aspects of a centralized bibliographic service might well prove to be the significant factors in facilitating the provision of resources to the colleges. Services which will be discussed in the context of an enlarged centralized service fall into this category.

Selection Advisory Service

The acquisition of learning resources for the College RMCs will be most effective if the content and intent of resources selected are such that they may be used to achieve the specific instructional objectives intended. Often the knowledge of this possibility can only be gained by the teacher previewing the materials and determining the ways in which the materials might most effectively be used.

However, if the listing of instructional objectives forms part of the course development procedure, it is possible for staff of the State RMC or the Curriculum and Evaluation Section to assist college staff by previewing materials and by compiling annotated lists of recommended materials which match the aims and objectives of the particular courses.

Close liaison between the State RMC and the other sub-sections of the Curriculum and Evaluation Section (of which the State RMC is a part) will allow the Curriculum Development Officers to work closely with the State RMC in providing this preview service, and will allow the State RMC to provide advice regarding the incorporation of learning resources into the curriculum at the time when the curriculum is being developed.

A/V hardware advisory service

Associated with the centralized acquisition service is the need for audio-visual hardware to be available in the College RMCs for use with the software purchased and the need for this hardware to be compatible with other hardware in the college. Collection and collation of data regarding the suitability and compatibility of hardware and the compilation of recommendations for the colleges is a function which could be best provided by the State RMC.

Acquisition of A/V hardware

A centralized purchasing system for the colleges is already in operation. Cooperation between that system and the State RMC would seem to provide the most effective method of purchasing A/V hardware for the College RMCs.

Maintenance of A/V hardware

A centralized maintenance system for the colleges has already been established. This system is capable of handling the maintenance of A/V hardware for the State

RMC and the College RMCs as well as the colleges' general maintenance needs.

Centralized acquisition of furnishings

A centralized service for the provision of accommodation and furnishings for the colleges has already been established. The State RMC is able to provide professional advice to the Buildings and Accommodation Section regarding the facilities required for new RMC buildings and in the refurbishing of old buildings. It will also provide advice to the colleges regarding the selection of furnishings for the College RMCs.

Advisory service for furnishings and accommodation

RMC administration advisory service

Staff of the State RMC will be able to provide an advisory service to the College RMC staff in the administration of the RMC's and in the provision of services to staff and students of the college.

Resource collection and information retrieval service

The State RMC is in an advantageous position to establish a resource collection of expensive or infrequently used resources, to provide research facilities for the staff of the Technical Education Branch, and to provide an information retrieval service for the Branch and the colleges.

Network collection and exchange service

It is suitably placed, too, to be the network node for the collection of state-wide TAFE research, information on state-wide curriculum development and on materials produced within the state; it could also act as the point of exchange of these materials with Centres in other states.

Production of learning resources

Due to the minimal availability of commercially produced audio-visual materials which are suitable for the requirements of Technical and Further Education and which will support the concept of individualized, life-long learning, it is considered that production and

reproduction of learning resources is an indispensable and integral function of the State RMC.

Production advisory service

It is important that learning resources be closely related to the specific instructional objectives of the learning task. Some of these resources can be produced by the teaching staff with the assistance of the State RMC production staff. In addition to providing assistance 'in the field' to teaching staff, the production staff will use the State RMC production equipment as an audio-visual teaching unit for workshops. The unit will also be used by classes of students receiving instruction in radio and TV operation.

Research and evaluation of College RMC services

The staff of the State RMC will be in a suitable position to conduct research into the effectiveness of the learning resources provided and to evaluate the College RMC services to its community.

Staff in-service

The staff of the State RMC will, in cooperation with the Staff Development sub-section, provide in-service opportunities for College RMC staff and the teaching staff of the colleges in the effective use of resources in the learning situation.

Publicity and publications

Programmes for developing the awareness of staff, students and the community to the variety of resources and materials available and to the advantages of their use, will be devised in cooperation with the Publications and Publicity sub-section of the Management and Student Services Section.

Assessment of future needs

Finally, cooperation with the Management and Student Services Section will give the staff of the State RMC the opportunity to participate in the assessment of future needs through futures research and through the development

of scenarios which will depict possible and preferred futures.

Conclusion

The concept of an enlarged centralized service is concerned with discovering the services which may be incorporated into the function of the State RMC to provide for the qualitative aspects necessary to the provision of learning resources for the colleges.

It is considered that the following functions are important aspects of the provision of learning resources to the colleges and should be provided by the State RMC in addition to the centralized services of acquisitions and technical services:

(a) Selection advisory service for learning resources;
(b) Selection advisory service for A/V hardware;
(c) Centralized acquisition of A/V hardware;
(d) Centralized maintenance of A/V hardware;
(e) Advisory service for furnishings and accommodation;
(f) Centralized acquisition of furnishings;
(g) RMC administration advisory service;
(h) Resource Collection and information retrieval service;
(i) Network collection and exchange service;
(j) Production and reproduction service;
(k) Production advisory service;
(l) Research and evaluation services;
(m) Staff in-service;
(n) Publicity and public relations;
(o) Assessment of future needs.

8 A View from the Colleges

In taking a systems approach to the solution of the problem of resource provision and processing for the College RMCs, it is important to look at the problem from the perspective of the client and his needs. Only then can we assess the extent to which a centralized bibliographic service might be effective.

The provision of books, periodicals and A/V software, which will support the curriculum of each college and which is related to the needs of the staff and students of each college, is a responsibility which the entire staff of the college shares with the State RMC.

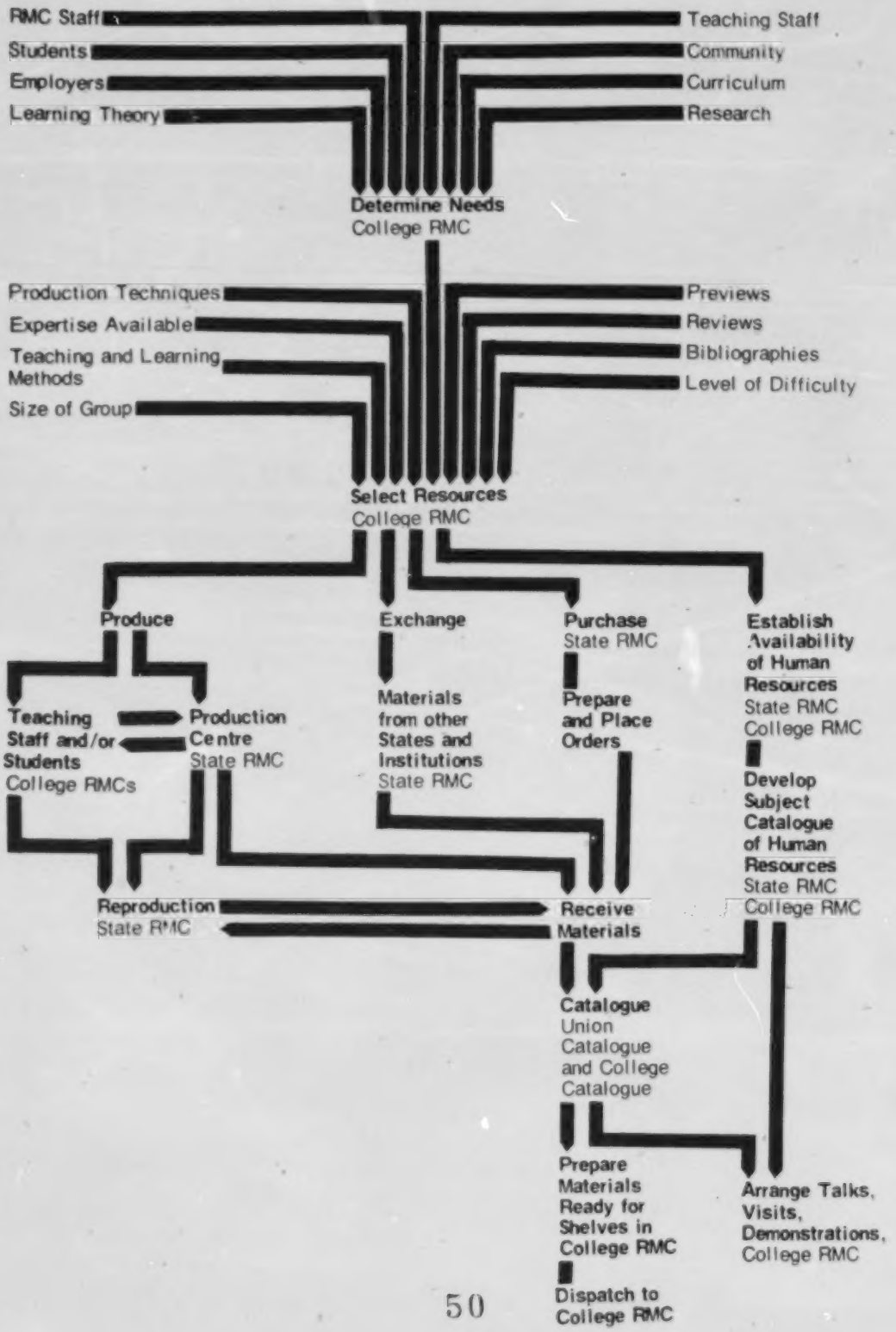
The diagram on page 36 illustrates the organizational network being established for the provision of material and human resources for the College RMCs.

Selection

The determination of needs, the establishment of priorities and the final selection of the learning resources provided for the college through the College RMC remain with the college.

The function of the State RMC, as far as selection is concerned, is to facilitate the provision of resources to the College RMCs by providing information, advice and expertise so that wise selection and maximum, effective use of the resources are possible.

Figure 1 **Provision of Resources for College RMCs**



Needs assessment

The needs of the college are determined by monitoring inputs from the teaching staff, RMC staff, students, the community, the curriculum, employers, learning theory, and research. These needs determine the resources to be purchased or produced.

Provision of resources

From the selection stage onwards the activities associated with the provision of resources divides into four catagories. It may be best to produce the materials, or exchange them, purchase them or use human resources (requiring the establishment of their availability).

Human resources

Human resources relate to people who would come to talk to a group of students, or provide a demonstration, or a tour.

Lists of these resources could be compiled by College RMCs for use within the area and lists of metropolitan resources could be developed for use by all colleges in the metropolitan area. These human resources may be catalogued in the same way as any other resource. They may well form part of the State Union Catalogue.

Purchase

The purchase of resource materials will be organized by the State RMC on the receipt of a list of resource materials selected and requested for purchase by a College RMC.

Priorities

It is anticipated that each college will be notified as to the specific allocation of funds available for the year, for purchase of resource materials. This will allow Principals and staff to establish priorities for purchase of resources in accordance with the needs of that college.

Orders

Orders for purchases will be prepared and placed, the purchase will be received and checked, catalogued and then prepared for the shelves before being dispatched to the College RMC.

Catalogue cards for the College RMC catalogue will be prepared and sent ready for filing. A State Union Catalogue of all materials held by all College RMCs for TAFE in Queensland will be prepared in microfiche form.

Each college will receive a microfiche Union Catalogue which will be regularly updated. This catalogue will facilitate the exchange of materials between colleges for the purpose of filling occasional needs or for the provision of a loan of material for preview. It will be the responsibility of the librarian to arrange for inter-library loans of all kinds.

Exchange

Exchange of materials for preview or reproduction, from other institutions in Queensland and in other states will be arranged through the State RMC. The Production Section will arrange for any required reproduction, and the materials will be processed by the State RMC before being sent to the College RMC.

Production

It is likely that the production of materials will occur in two areas. They will be produced by
(a) the staff of the Production Section, in the Production Centre or in the colleges or,
(b) by the teaching staff and/or students in the colleges, assisted by the Production staff if required.
It is planned to develop the Production Centre in such a way that the production equipment and expertise of the Production staff will be available to assist the teaching staff of the colleges to produce high quality teaching and learning materials.

Audio-visual equipment suitable for the production of high quality software is at present being purchased. This will enable the staff of the centre to work in cooperation with the teaching staff of the colleges and officers of the Curriculum and Evaluation Section to develop learning resources which will satisfy specific needs of college staff and students. The Centre will produce and reproduce overhead transparencies, 35 mm slides, audio cassette tapes, video cassette tapes, programmed booklets, charts and various combinations of these.

Resource sharing

It is anticipated that material produced in the colleges, and in the Production Centre will be available for reproduction for use in other colleges and institutions in the state and in other states. Communication links which will establish Resource Sharing Networks throughout Australia are already being forged.

To facilitate distribution of these materials, the State RMC will compile a catalogue of teaching aids and student learning packages available on request to College RMCs and teaching staff.

Conclusion

The provision of resources for the College RMCs will be handled by the State RMC in response to a requisition from the colleges.

The selection of resources to be provided for a College RMC is a responsibility which the *entire staff of a college* shares with the State RMC. It is made in response to needs and in accordance with priorities established in relation to funds available. Selection aids will be developed by the State RMC to assist college staff.

Decisions regarding purchase, exchange, or production will depend upon availability and selection criteria.

The State RMC will facilitate the process by providing advisory services to colleges.

9 The Aims and Objectives of the State Resource Materials Centre

In developing the following *Aims and Objectives of the State RMC*, care has been taken to ensure that they are consonant with the aims and objectives of the TAFE system in Queensland and with the philosophy of TAFE in Australia as expressed in the ACOTAFE and TAFEC reports.

An attempt to achieve an integrated approach has resulted in each objective tending to include, to some extent, the intention of each of the aims.

The following definitions apply to the statement:

The *aims* of the State Resource Materials Centre will be a set of broad general statements which will describe the values and philosophies underlying the establishment, functions and purposes of the centre. Together, the aims will provide the orientation necessary for the effective functioning of the centre.

The *objectives* of the State Resource Materials Centre will be a set of more specific statements which will provide guidelines for the selection of the actions by which the aims will be achieved. They will describe the desired outcomes in such a way that continuous evaluation of the achievement and effectiveness of the objectives is possible.

Resources are all those elements both material and human which can be considered as factors contributing to effective learning.

Aims of the State Resource Materials Centre

1 To facilitate student learning through a perceptive response to individual needs.

2 To provide a wide variety of learning resources which will effectively support the large, complex and diverse range of educational programmes and activities offered within Technical and Further Education.

3 To ensure that the wide variety of learning resources is made as accessible as possible to all staff and all students, wherever they live.

4 To provide opportunities and facilities for all individual citizens to fulfil a need for self-development through a life-long education process.

Objectives of the State Resource Materials Centre

1 To provide an advisory and developmental service for the selection of resources for

(a) the colleges; and

(b) the State Resource Materials Centre

which will be effective with respect to the facilitation of student learning through the process of

(i) the definition of communication problems/learning needs;

(ii) the determination of the resource needs which will achieve solutions to these problems/needs.

2 To provide an acquisition service for the supply of selected resources through a process of

(a) advisory and developmental services for the evaluation of materials produced or available for purchase or loan;

(b) effective acquisition of materials available for purchase or loan;

(c) provision to students and staff of the advice, skill development and/or services for the production, reproduction or adaptation of the resource materials needed.

This acquisition service will be available
(a) to College Resource Materials Centres so that materials acquired will be effective with respect to the facilitation of student learning, and
(b) to the State Resource Materials Centre so that materials acquired and services available will provide an effective resource base for:
(i) policy-making within the Technical Education Branch;
(ii) the design and implementation of curricula;
(iii) the development and production of educationally effective resource materials;
(iv) staff development and teacher preparation;
(v) the development of educationally effective briefs for buildings and accommodation;
(vi) the selection of suitable equipment to support the curriculum;
(vii) the selection and arrangement of furnishings suitable for specific learning areas;
(viii) the provision of loans to colleges of 'difficult to borrow' resource materials for the purpose of preview before purchase.

3 To provide a cataloguing service which will be effective with respect to
(a) the accessibility of learning resources to users, and
(b) the cost of the service.

4 To provide for the development of resource-sharing networks involving the TAFE Resource Materials Centres and the resource centres of other institutions throughout Australia.

5 To provide a processing and distribution service for the preparation of materials ready for student use.

6 To provide for or facilitate, the provision of staff development opportunities for

(a) Resource Materials Centre personnel to acquire the skills and attitudes necessary for the achievement of the aims and objectives;

(b) College Teaching Staff to acquire the attitudes and skills necessary for the most effective utilization of learning resources in the learning process;

(c) Officers of the Branch to acquire the attitudes and skills necessary for the most effective utilization of the resources of the State RMC in their facilitation of student learning.

7 To provide for the integration of learning resources, into the process of curriculum development in order that the content, level of difficulty, organization of materials and media selected for the presentation of information may together form a learning resource which will most adequately provide for each specific learning need.

8 To provide for an adaptive response to change, through a process of continuous evaluation of

(a) learning resources and their relationship to the learning/teaching process; and

(b) the processes involved in the provision of services to the colleges.

Conclusion

The aims and objectives of the State RMC have been determined to provide the orientation and specific guidelines necessary for the effective functioning of the Centre.

Care has been taken to ensure that they are consonant with the aims and objectives of the Curriculum and Evaluation Section (of which the Centre is a part), the TAFE system in Queensland, and the TAFE system in Australia. In addition it is recognized that the aims and objectives must allow the Centre to function as an integral part of the education system in Queensland.

10 The Tasks: The Sharing of Responsibilities for the Achievement of the Aims and Objectives

The selection of the tasks by which the *Aims and Objectives of the State RMC* would be achieved was made by consensus. Each staff member of the State RMC participated in the decision-making involved. Each section of the State RMC felt that it could contribute to the achievement of most of the objectives. The overlap is detailed in Table 3. The staff considered that the tasks would be most effectively performed through a pooling of resources and through the application of a cooperative problem-solving approach to the tasks.

The standards and evaluation tools are the means by which the State RMC will evaluate the extent to which each task is contributing to the achievement of the objectives.

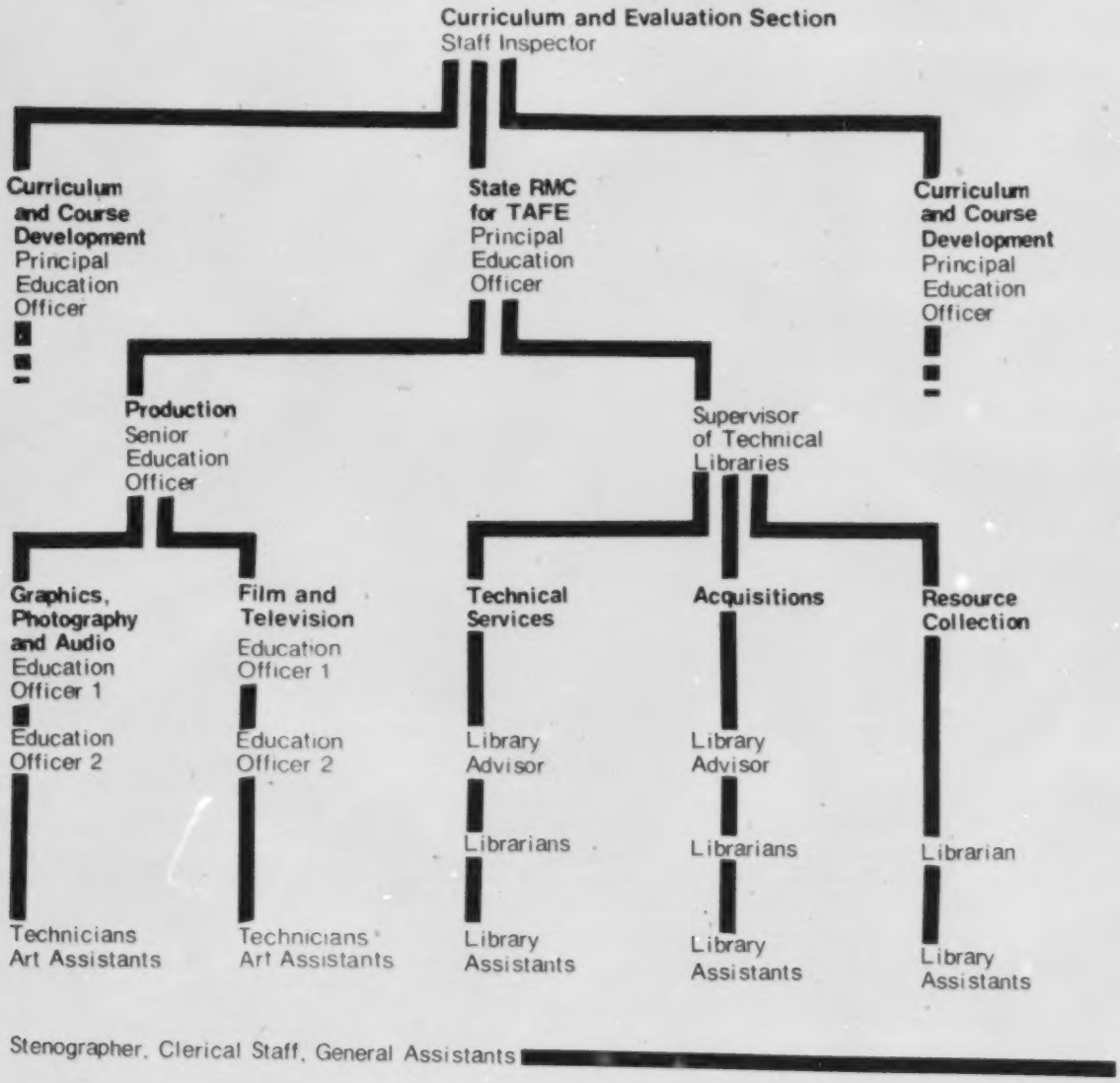
The four sections of the State RMC are Acquisitions, Technical Services, Production and Resource Collection.

It is recommended that the sections function in accordance with the organization chart on page 48.

Table 3 **The Relationship of State RMC Objectives to Sections of the State RMC**

Objective	Acquisition	Technical Services	Production	Resource Collection
1.1	X		X	X
1.2	X	X	X	X
2.1	X	X	X	
2.2	X		X	
2.3	X	X	X	
3.1		X		
3.2		X		
4.1		X		
4.2		X		
4.3	X	X	X	X
5.1		X		
5.2		X		
6.1	X	X	X	X
6.2	X	X	X	X
6.3	X		X	
7.1	X	X	X	X
7.2	X			X
8.1	X	X	X	X
8.2	X	X	X	X
8.3	X	X	X	X
8.4	X	X	X	X

Figure 2 **State Resource Materials Centre for TAFE, Queensland**
Organizational Structure



Objective 1 *To provide an advisory and developmental service for the selection of resources for*
(a) the colleges; and
(b) the State Resource Materials Centre
which will be effective with respect to the facilitation of student learning through the process of:
(i) the definition of communication problems/learning needs;
(ii) the determination of the resource needs which will achieve solutions to these problems/needs.

Task	1.1	Sections: Acquisitions Production Resource Coll.	Provision of suitable opportunities and climate for discussion between Production, Acquisitions and the client (teaching staff, student, branch officer, librarian) for the purpose of (a) defining communication problems and learning needs; and (b) determining the resource needs which will achieve solutions to these problems/needs.
		Standards	Suitable solutions which satisfactorily match resources to problems/needs are achieved.
		Evaluation Tool	Feedback from client will be requested e.g. request form to be sent to client 3 months after resource is put into the problem situation to obtain client's assessment of the effectiveness of the match.

Task	1.2	Sections: Acquisitions Production Resource Coll. Technical Services	Provision of information on the existence and availability of resources to meet specific learning needs by (a) response to requests of college librarian and teaching staff for information; (b) preparation of subject bibliographies; (c) distribution of up-to-date publishers catalogues; (d) development and distribution of the State Union Catalogue; and (e) development of college and State RMC catalogues.
		Standards	Information, publishers' catalogues, State Union Catalogue and bibliographies are used by librarians and teaching staff in the selection of materials.
		Evaluation Tool	Spot checks on relationships between information made available and content of requisitions.

Objective 2 *To provide an acquisition service for the supply of selected resources through a process of:*
(a) advisory and developmental service for the evaluation of materials produced or available for purchase or loan;
(b) effective acquisition of materials available for purchase or loan;
(c) provision to students and staff of the advice, skill development and/or services for the production, reproduction or adaptation of the resource materials needed.

This acquisition service will be available:
(a) to College Resource Materials Centres so that the materials acquired will be effective with respect to the facilitation of student learning, and
(b) to the State Resource Materials Centre so that materials acquired and services available will provide an effective resource base for:
(i) policy-making within the Technical Education Branch;
(ii) the design and implementation of curricula;
(iii) the development and production of educationally effective resource materials;
(iv) staff development and teacher preparation;
(v) the development of educationally effective briefs for buildings and accommodation;
(vi) the selection and arrangement of furnishings suitable for specific learning areas;
(vii) the selection of suitable equipment to support the curriculum;
(viii) the provision of loans to colleges of 'difficult to borrow' resource materials for the purpose of preview before purchase.

Task	2.1	Sections: Acquisitions Production Technical Services	Establishment of criteria for the evaluation of learning resources (a) print and non-print materials. (b) human resources. (c) A/V hardware (including compatibility). (d) furnishings and space.
		Standards	Resources assessed by use of the established criteria shall be effective in satisfying the learning need.

		Evaluation Tool	(a) Feedback from the client will be requested (same as instrument 1.1). (b) Student response. (c) Evaluation of whether instructional objectives are met.
Task	2.2	Sections: Acquisitions Production	Provision of an effective acquisition service for resource materials for the State and College RMCs through (a) purchase, and (b) production.
		Standards	(a) time - The acquisition service should provide the materials ordered by the resource centres within an acceptable time span (to be specified). (b) quantity - The acquisition service should be able to efficiently handle the quantity of orders requested by the RMCs in the time specified in (a). (c) cost - The centralized service should provide materials at the least cost (a cost saving to the colleges). (d) quality - needs satisfied. (e) cost - the automated system will be more cost-effective than the manual system.
		Evaluation Tool	Statistics - success rate; money available = money spent.
Task	2.3	Sections: Acquisitions Production Technical Services	Provision of access to (a) production and reproduction equipment, and (b) production expertise

			to staff and students for the development of production skills and for the production of resources to meet learning needs.
		Standards	Effective learning resources will be produced by the clients.
		Evaluation Tool	(a) As 1.1 - formally and informally - (request form) climate assessment. (b) Student response. (c) Evaluation of whether instructional objectives are met. (d) Statistics on use of item.
Objective 3		*To provide a cataloguing service which will be effective with respect to* *(a) the accessibility of learning resources to users, and* *(b) the cost of the service.*	
Task	3.1	Section: Technical Services	Provision of a cataloguing service by obtaining cataloguing copy (a) from commercial sources (b) from bibliographic tools and (c) from original cataloguing.
		Standards	(a) The method used is cost effective.
		Evaluation Tool	(a) Statistical study of comparative costs - staff time, commercial charge, quality.
		Standards	(b) Job satisfaction of central and college RMC staff.
		Evaluation Tool	(b) Climate evaluation.

		Standards	(c) Comparison of manual and automated systems.
		Evaluation Tool	(c) Statistical study.
Task	3.2	Section: Technical Services	Resources will be made accessible to students and staff through the catalogue by means of (a) relevant subject headings; (b) adequate cross referencing; and (c) a classification scheme which brings resource materials on related subjects together.
		Standards	Students are able to find a range of materials with which to satisfy their learning needs.
		Evaluation Tool	User satisfaction as measured by student and staff survey.
Objective 4		*To provide for the development of resource-sharing networks involving the TAFE Resource Materials Centres and the resource centres of other institutions throughout Australia.*	
Task	4.1	Section: Technical Services	Establishment of a State Union Catalogue of all college resources to facilitate the sharing of all TAFE resources in Queensland.
		Standards	The State Union Catalogue contains all resource materials held in the college and State RMCs.
		Evaluation Tool	Spot checks by colleges and State RMCs.

Task	4.2	Section: Technical Services	Distribution of the State Union Catalogue to (a) all TAFE College RMC's in Queensland (b) other institutions and TAFE networks in other states to facilitate the sharing of resources.
		Standards	The State Union Catalogue is used by TAFE RMC's, other institutions and TAFE networks for inter-library loans.
		Evaluation Tool	Statistics on inter-library loans. Survey for broad indications of use of the State Union Catalogue.
Task	4.3	Sections: Acquisitions Production Resource Coll. Technical Services	Negotiation and establishment of means by which resources may be shared between TAFE and other institutions throughout Australia.
		Standards	Free access to all TAFE (Queensland) resource materials is offered and received from other institutions.
		Evaluation Tool	Response to requests $< \begin{matrix} \text{time} \\ \text{cost} \end{matrix}$
Objective 5		*To provide a processing and distribution service for the preparation of materials ready for student use.*	
Task	5.1	Section: Technical Services	Physical preparation of resources for use in the College RMCs and State RMC by (a) accessioning material;

			(b) producing and affixing spine labels; (c) inserting loan stationary; (d) laminating book jackets; (e) producing catalogue card sets; (f) providing suitable packaging for non-book material.
		Standards	(a) The methods used are cost-effective.
		Evaluation Tool	(a) Statistical comparison of costs involved.
		Standards	(b) High quality is maintained.
		Evaluation Tool	(b) Time trial for durability.
Task	5.2	Section: Technical Services	Distribution of processed material to colleges.
		Standards	Dispatch and delivery is efficiently managed and controlled.
		Evaluation Tool	Information contained in returned packing slips.
Objective 6			*To provide for, or facilitate the provision of staff development opportunities for:* *(a) Resource Materials Centre personnel to acquire the skills and attitudes necessary for the achievement of the aims and objectives;* *(b) College Teaching Staff to acquire the attitudes and skills necessary for the most effective utilization of learning resources in the learning process;*

(c) Officers of the Branch to acquire the attitudes and skills necessary for the most effective utilization of the resources of the State RMC in their facilitation of student learning.

Task	6.1	Sections: Acquisitions Resource Coll. Technical Services Production	Provision of advice and establishment of opportunities for College RMC staff to develop attitudes and skills necessary (a) for the management and organization of the Centre; (b) for the development of a well-balanced collection which relates to the real needs of the college community; (c) for the production and application of learning resources.
		Standards	(a) The development of the collection will relate to the total current and future needs of the college community.
		Evaluation Tool	(a) Survey of users.
		Standards	(b) Staff and students have maximum access to any resource needed.
		Evaluation Tool	(b) Survey on satisfaction of user needs.
Task	6.2	Sections: Acquisitions Resource Coll. Technical Services Production	Liaison with the Staff Development Section in the provision of in-service programmes to assist teaching staff and branch officers to develop the skills and attitudes necessary (a) for the integration of resources;

			(b) To ensure efficient access to resources held in the individual colleges, other TAFE colleges and other institutions
		Standards	(a) Staff integrate suitable resources with the learning situation.
		Evaluation Tool	(a) Evaluation of effectiveness of student programmes in terms of meeting instructional objectives.
		Standards	(b) Programmes and workshops are provided for college teaching staff.
		Evaluation Tool	(b) Survey to determine staff development needs.
Task	6.3	Sections: Acquisitions Production	Provision of skills, guidance and opportunity for self-development to college teaching staff and branch officers through workshops in educational technology and by participation in production teams generated from college needs, Teacher Preparation, Staff Development, Curriculum and Course Development.
		Standards	Staff apply suitable resources to the learning situation.
		Evaluation Tool	Evaluation of effectiveness of learning programmes in terms of meeting instructional objectives.

Objective 7		*To provide for the integration of learning resources into the process of curriculum development in order that the content, level of difficulty, organization of materials and media selected for the presentation of information may together form a learning resource which will most adequately provide for each specific learning need.*	
Task	7.1	Sections: Production Technical Services Acquisitions Resource Coll.	Membership of curriculum development and course development committees to advise on the availability of resource materials and to inspire the effective utilization of resources within programmes.
		Standards	The design of curricula and courses will provide for the optimum use of resources.
		Evaluation Tool	Assessment of the programme.
Task	7.2	Sections: Acquisitions Resource Coll.	Provision of an information service through (a) bibliographies (b) a resource collection (c) an inter-library loan service.
		Standards	Information needs of Branch officers and teaching staff are met.
		Evaluation Tool	Survey of user satisfaction.
Objective 8		*To provide for an adaptive response to change, through a process of continuous evaluation of* *(a) learning resources and their relationship to the learning/teaching process, and* *(b) the continuous evaluation of the processes involved in the provision of services to the college.*	

Task	8.1	Sections: Acquisitions Technical Services Production Resource Coll.	Devise short, medium and long range plans for implementation of objectives 1 to 7 which are flexible, open-ended and responsive to feedback from college students and teaching staff, industry, the workplace, community, government and other parts of the education enterprise.
		Standards	Qualitative and quantitative feedback as described in the evaluation tools for objectives 1 to 7 will be collated and related to the provision of resources.
		Evaluation Tool	Long term monitoring of evaluation tools.
Task	8.2	Sections: Acquisitions Technical Services Production Resource Coll.	Develop standards of resource provision and maintenance for College RMCs (a) book and non-book resources (b) periodical holdings (c) A/V hardware (d) furniture (e) buildings and accommodation.
		Standards	Standards will be developed in stages in accordance with anticipated funding. Ultimate goals will relate to the educational needs of the colleges and the standards suggested by TAFEC.
		Evaluation Tool	Annual statistics of holdings, A/V hardware etc. in relation to demand statistics.

Task	8.3	Sections: Acquisitions Technical Services Production Resource Coll.	Participate in development of educational briefs for College RMC buildings which will provide for future utilization and expansion in line with increased clientele.
		Standards	Further needs are realistically assessed and provided for in the educational briefs.
		Evaluation Tool	Long-term monitoring of building programmes.
Task	8.4	Sections: Acquisitions Technical Services Production Resource Coll.	Planning for effective provision of personnel for College RMCs with respect to (a) staff numbers (b) types of personnel (c) job profiles of positions in relation to the services required of each RMC.
		Standards	Staff is able to satisfy service demands.
		Evaluation Tool	Qualitative and quantitative assessment of response to service demands and perceived future needs.

Conclusion

The tasks are the means by which the aims and objectives of the State RMC will be achieved. The extent to which the aims and objectives are achieved will be evaluated by using the evaluation tools specified, with reference to the pre-determined standards.

11 The Tasks: Organization for Performance

The way in which each section of the State RMC will organize its contribution to the performance of the tasks is detailed in this chapter by flow-chart and/or description. The relationship of the organization of the tasks and the process by which materials will be acquired for the College RMCs is discussed and diagrammed.

A Tasks Relating to Acquisitions

The process of acquisition, whether it is for print, or non-print materials, commences at the college when a requisition for resource materials for RMC is initiated. Three copies of the requisition are made. One copy is retained by the college as a record of items requested and two copies are forwarded to the State Resource Materials Centre. On receipt of the requisition form at the State RMC, an *Acknowledgement of Receipt of Requisition* form is sent to the college. Orders are filed by date of receipt and they are processed according to that date.

The order processing procedure commences with a check of the bibliographic data on the requisition form in the relevant *Books in Print* or appropriate publisher's catalogue. One of the copies of the requisition form is

marked indicating what is out of print or otherwise unobtainable and is returned to the college with an *Advice of Placement of Order* slip.

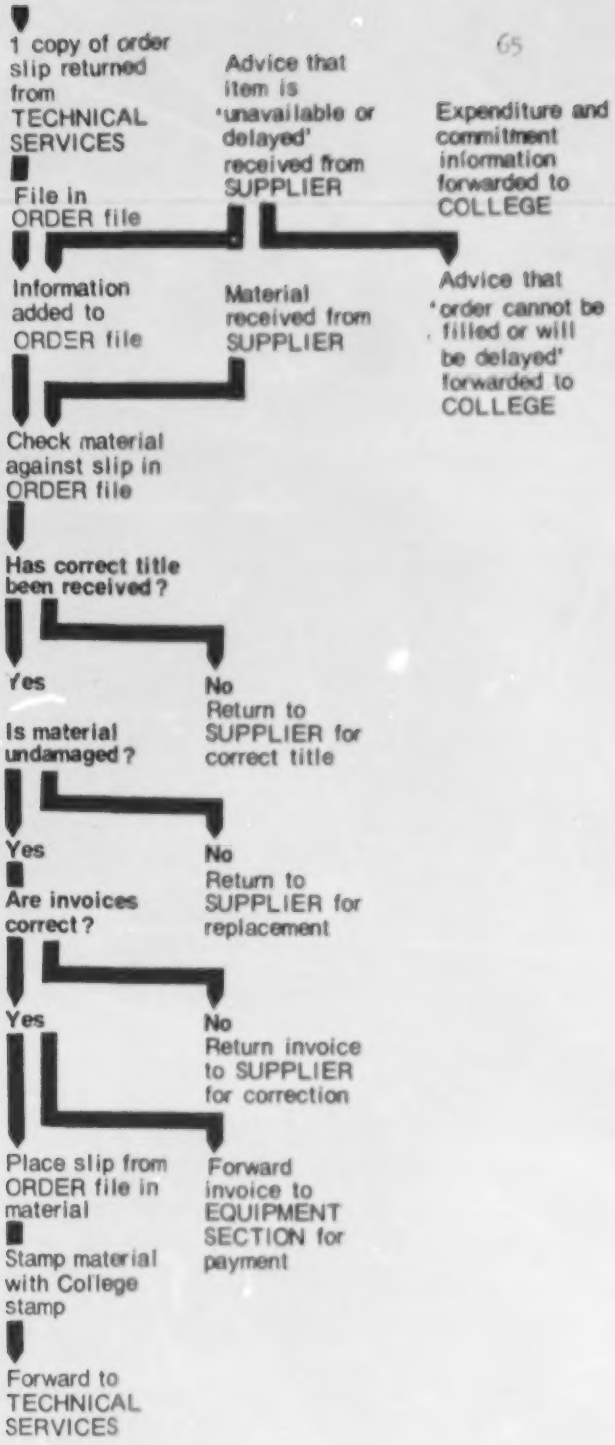
After the bibliographic data has been confirmed, a decision is made regarding the supplier; and this information, along with the relevant vote number, is added to the requisition form which is then ready for typing.

Seven copies of each title to be ordered are made by typing on self-carboning order slips. Copy one of the order slip is filed in the order file by order number; copy two is filed in the State Union Catalogue by title as a record of 'on order' material; copies three and four are sent to the supplier; and copies five, six and seven are retained by the Equipment Section of the Technical Education Branch. A requisition form and an order form are typed for each order placed. The requisition form is retained by the Equipment Section and the order form is forwarded to the vendor with the appropriate slips. Before being forwarded to the supplier, the estimated cost of the order is debited against the college vote file. The invoiced expenditure is also debited against the college vote file each month and a monthly statement of commitment and expenditure totals is forwarded to the colleges. The invoiced totals for the statement are checked against the Treasury print-out of expenditure.

A file is maintained on each item on order. Information from the publisher regarding 'out of print' items or delays in supply can be added to this file when such information is provided by the supplier.

Figure 3 **Acquisitions Flow Chart**

Advice of availability of new material for previewing received from SUPPLIER
Request sent for preview material
Material received from SUPPLIER
Preview material presented by SUPPLIER
Record made of all preview material received
Prepare evaluation slip
Notify Education Officers with expertise in appropriate areas that material is available for preview
Material previewed and evaluation slip completed
Preview material returned to SUPPLIER or purchased for State RMC
Evaluation Sheets prepared into recommended selection list and published for distribution to COLLEGES
Order initiated by COLLEGE
2 copies of requisition received from COLLEGE
Requisitions dated and arranged by date of receipt
Acknowledgement of receipt of requisition sent to COLLEGE
Remove requisition for bibliographic checking
Is there sufficient information to confirm author and title from BOOKS IN PRINT, SUBJECT GUIDE, or publisher's catalogues.
Yes confirm or correct bibliographic information
No return 1 copy of requisition form to COLLEGE indicating Insufficient information or out of print'
Determine supplier and add ordering information to requisition form
Technical Education Branch requisition, and order with vote No. written on, typed, checked, and signed
7 copies of order slip for each item typed
2 copies of each order slip forwarded to TECHNICAL SERVICES
TEB requisition 5 copies,of each order slip and order forwarded to EQUIPMENT SECTION for despatch to SUPPLIER
Estimated cost debitted against COLLEGE VOTE file
Monthly statement received from EQUIPMENT SECTION
Invoiced expenditure debitted against COLLEGE VOTE file each month


1 copy of order slip returned from TECHNICAL SERVICES
File in ORDER file
Information added to ORDER file
Check material against slip in ORDER file
Has correct title been received?
Yes
Is material undamaged?
Yes
Are invoices correct?
Yes
Place slip from ORDER file in material
Stamp material with College stamp
Forward to TECHNICAL SERVICES
Advice that item is 'unavailable or delayed' received from SUPPLIER
Material received from SUPPLIER
No
Return to SUPPLIER for correct title
No
Return to SUPPLIER for replacement
No
Return invoice to SUPPLIER for correction
Forward invoice to EQUIPMENT SECTION for payment
Expenditure and commitment information forwarded to COLLEGE
Advice that 'order cannot be filled or will be delayed' forwarded to COLLEGE

When an ordered item is received from the supplier, the matching order slip is removed from the file and is sent with the item to the Technical Services Department. The acquisition process has been diagrammed in the Flow Chart on p. 60.

The State RMC has established criteria for the evaluation of audio-visual hardware and furnishings. An important aspect of the selection criteria is the need to ensure that the hardware and software purchased are compatible. Audio-visual hardware is acquired centrally by the Equipment Section of the Technical Education Branch and furnishings for the College Resource Materials Centres are acquired centrally by the Buildings and Accommodation Section.

Advisory and developmental service

A necessary prerequisite to effective resource acquisition is the provision of an advisory and developmental service for the selection of resources which will facilitate student learning. This requires the provision of suitable opportunities and climate for discussion between Production, Acquisitions and the client for the purpose of defining communication problems and learning needs. As a result of these discussions, resource needs will be determined.

Availability

Information on the existence and availability of resources will be provided through the preparation of subject bibliographies, the distribution of publishers' catalogues, the State Union Catalogue and a previewing service.

Previewing

Because of the difficulty of obtaining non-print materials for previewing, the State RMC offers a previewing service to the technical colleges. Arrangements have been made whereby some publishers

deliver, directly to the State RMC, materials they believe applicable to technical education courses. In other cases the State RMC requests, directly from the publishers, previews of materials advertised in catalogues.

When the preview material is delivered to the State RMC, its arrival is recorded and an evaluation slip is prepared. A file is maintained of the subject expertise of Education Officers in the Curriculum Development Section and the prepared evaluation slip is passed to the appropriate Education Officer.

At the appropriate time, the material is evaluated and the evaluation slip is completed. The preview material is then returned to the distributor or publisher or is purchased by the State RMC.

Selection aids

On a regular basis, a list of recommended non-print material is prepared and is published in a bulletin which is then distributed to the colleges as a selection aid.

Evaluation tools

Effective acquisition requires the establishment of criteria for the evaluation of learning resources and such criteria will be developed by the Acquisitions Section in association with the Production and Technical Services Sections.

The scope of the evaluation criteria will include print and non-print materials, human resources, audio-visual hardware, furnishings and space.

Staff development

As well as providing an acquisition service, the Acquisitions Section, in association with other Sections within the State RMC will provide, or

facilitate the provision of staff development opportunities for Resource Materials Centre personnel to acquire the skills and attitudes necessary for the achievement of the aims and objectives of the Resource Materials Centres. College teaching staff and Branch officers will also be assisted to acquire the attitudes and skills necessary for the most effective utilization of learning resources in the learning process.

Integration

To provide for the integration of learning resources into the process of curriculum development in order that the content, level of difficulty, organization of materials and media selected for the presentation of information may together form a learning resource which will most adequately provide for each specific learning need, State RMC personnel will become members of curriculum development and course development committees.

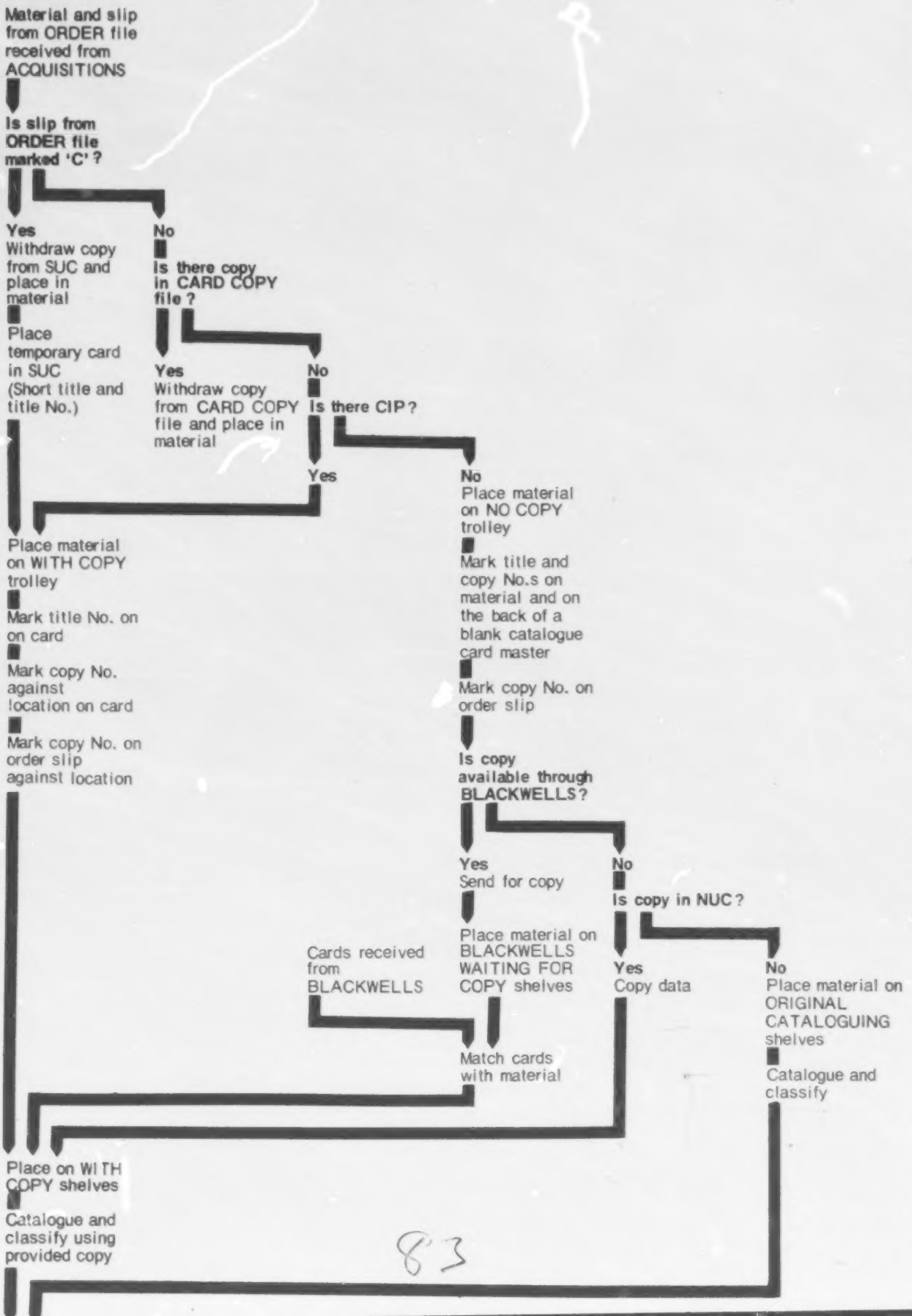
In order to provide for an adaptive response to change, the Acquisitions Section will constantly evaluate its function in resource provision. This will necessitate the development of short, medium and long range plans which are flexible, open-ended and responsive to feedback from college students and teaching staff.

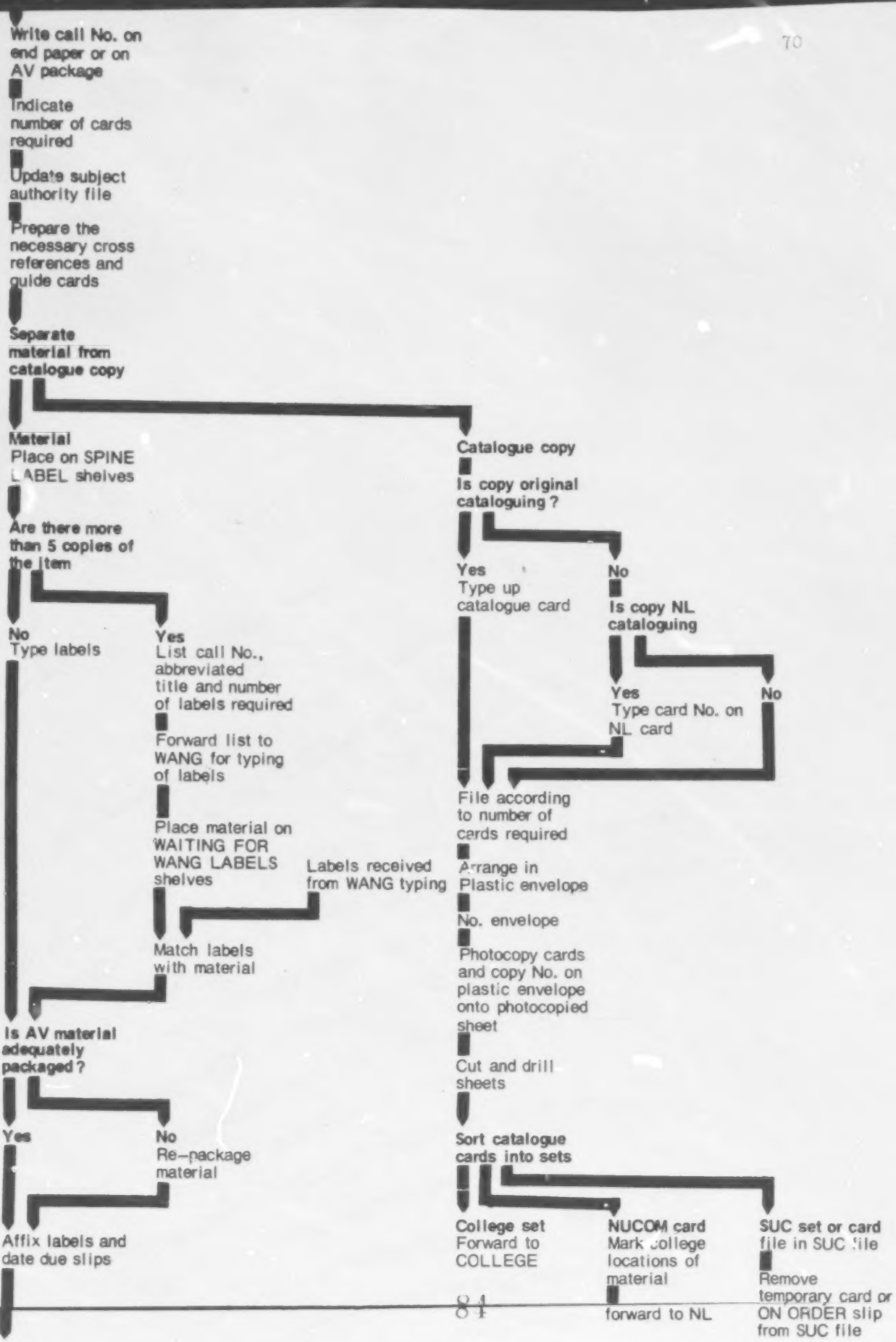
B Tasks Relating to Technical Services

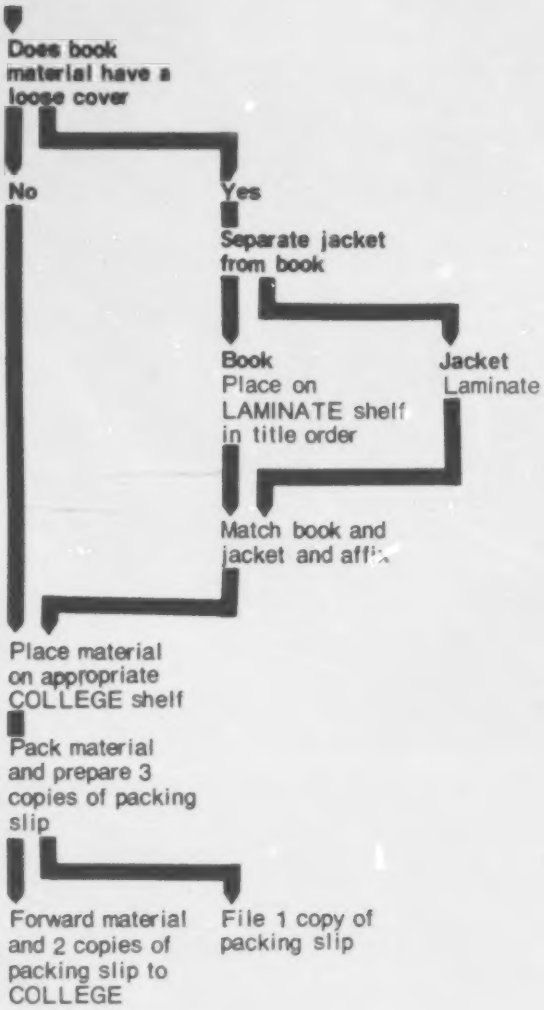
Introduction

Technical Services processes are described on the flow chart on page 69. The following is an explanation of the rationale of these processes.

Figure 4 **Technical Services Flow Chart**


Material and slip from ORDER file received from ACQUISITIONS
Is slip from ORDER file marked 'C'?
Yes
Withdraw copy from SUC and place in material
Place temporary card in SUC (Short title and title No.)
No
Is there copy in CARD COPY file?
Yes
Withdraw copy from CARD COPY file and place in material
No
Is there CIP?
Yes
No
Place material on NO COPY trolley
Mark title and copy No.s on material and on the back of a blank catalogue card master
Mark copy No. on order slip
Is copy available through BLACKWELLS?
Yes
Send for copy
Place material on BLACKWELLS WAITING FOR COPY shelves
No
Is copy in NUC?
Yes
Copy data
No
Place material on ORIGINAL CATALOGUING shelves
Catalogue and classify
Cards received from BLACKWELLS
Match cards with material
Place material on WITH COPY trolley
Mark title No. on on card
Mark copy No. against location on card
Mark copy No. on order slip against location
Place on WITH COPY shelves
Catalogue and classify using provided copy


Write call No. on end paper or on AV package
Indicate number of cards required
Update subject authority file
Prepare the necessary cross references and guide cards
Separate material from catalogue copy
Material
Place on SPINE LABEL shelves
Are there more than 5 copies of the item
No
Type labels
Yes
List call No., abbreviated title and number of labels required
Forward list to WANG for typing of labels
Place material on WAITING FOR WANG LABELS shelves
Labels received from WANG typing
Match labels with material
Is AV material adequately packaged?
Yes
No
Re-package material
Affix labels and date due slips
Catalogue copy
Is copy original cataloguing?
Yes
Type up catalogue card
No
Is copy NL cataloguing
Yes
Type card No. on NL card
No
File according to number of cards required
Arrange in Plastic envelope
No. envelope
Photocopy cards and copy No. on plastic envelope onto photocopied sheet
Cut and drill sheets
Sort catalogue cards into sets
College set
Forward to COLLEGE
NUCOM card
Mark college locations of material
forward to NL
SUC set or card
file in SUC file
Remove temporary card or ON ORDER slip from SUC file


Does book material have a loose cover
No
Yes
Separate jacket from book
Book
Place on LAMINATE shelf in title order
Jacket
Laminate
Match book and jacket and affi
Place material on appropriate COLLEGE shelf
Pack material and prepare 3 copies of packing slip
Forward material and 2 copies of packing slip to COLLEGE
File 1 copy of packing slip

With such a relatively small percentage of TAFE RMC holdings already catalogued, the State RMC is in the somewhat unique position of being able to set down uniform standards for cataloguing and classification for all TAFE RMCs without incurring any lengthy and expensive recataloguing programmes.

Cataloguing

Cataloguing follows the *Anglo-American Cataloguing Rules*, including the new Chapter 6, Weihs' *Non-Book Materials*, *Library of Congress Subject Headings* and *Library of Congress Classification*. All cataloguing data will be in AUSMARC format as described in the *Australian MARC Specification*.

The decision to follow these standards has been made so that State RMC should be able to participate in any future cooperative cataloguing project which may develop on the local, state or national scene without any major changes to the format of the data.

Although Library of Congress Classification is not available for materials catalogued by the National Library, it has been decided to use Library of Congress Classification Scheme. It was felt that Library of Congress Classification, with its provision for expansion within each subject area, was well suited to the needs of TAFE concerned as it is with latest developments in technology. In particular, it was felt that LC's T Schedules allowed for more specific classification than the equivalent 600's Schedules of Dewey Decimal Classification. Reader Education programmes in each college will ensure that students and staff are able to use the classification system.

It should be noted that although LC Classification will be used, DDC data will not be eliminated from any

cataloguing copy received from outside sources. This data would be included in the automated data base and could be used by other institutions in any cooperative cataloguing project.

The College of Art, the only TAFE college in Queensland with a catalogued library collection, holds approximately 4,700 titles. All new titles are now being catalogued according to the previously mentioned standards. Recataloguing of the collection will take place when data can be requested from NL's Card Service by ISBN or LC Card Number. By doing this, all cataloguing data will be in AUSMARC format and later available from the National Library in magnetic tape form.

Much of this retrospective data will be used in cataloguing resources for the Townsville College which offers some of the same courses as the College of Art.

Obtaining cataloguing copy

Cataloguing copy will be obtained from four sources:

- .National Library Card Service
- .Blackwells North America Card Service
- .Cataloguing-In-Publication Data
- .National Union Catalogue

Those materials not catalogued from these sources will be catalogued by State RMC staff.

National Library

Copy is currently obtained from the National Library by forwarding one copy of the State RMC's multi-part order stationary to the Australian Card Service. Single cards are requested.

The Card Service anticipates that by 1977 lists of ISBN's or LC Card Numbers only will be required to obtain card copy.

The Australian MARC Record Service offered by the National Library can be utilized when an automated system is introduced.

Cataloguing-In-Publication data

Those materials with CIP data will be tagged in the AUSMARC format. Cards will be produced as described below. Tag sheets will be filed to be used when inputting data to the computer base system.

Blackwells

For those materials with no National Library copy and no CIP, a check will be made in Blackwells Title Index. If cataloguing data is available, this can be requested by listing the Blackwells code number. Card copy received from Blackwells will then be reproduced as required.

Copy from Blackwells need not be tagged to AUSMARC format as Blackwells keep a record on magnetic tape of all data supplied to customers. When automation of the cataloguing function takes place, this data can be requested in tape form. A programme can be written to convert this data to AUSMARC format.

It is recognised that use of two commercial sources of cataloguing data may become unwieldy. Statistics will be kept to analyse the cost-effectiveness of using the two sources and it is possible that only one source could be used in the future.

National Union Catalogue

Remaining titles will be checked in NUC and data will be treated the same as CIP data.

Original cataloguing

Those titles for which no catalogue data can be purchased or located in bibliographic tools will be catalogued by State RMC staff. Data will be tagged according to the Australian MARC Specification and treated the same as data from CIP and NUC sources.

It is anticipated that most material obtained locally by colleges will be trade literature, pamphlets or ephemera. The decision to catalogue these fully or to include in a vertical file will be made by the college librarian. Any material catalogued locally will have to be in AUSMARC format. Data will have to be forwarded to the State RMC for inclusion in the State Union Catalogue.

State Union Catalogue

A union catalogue of holdings of all TAFE RMCs in Queensland will be established. The catalogue will initially consist of a full card set for each title. Holdings will be marked on the back of the main entry.

The State Union Catalogue will form the data base for all future cataloguing. A check will be made in the Union Catalogue to see if the title ordered has been catalogued previously. If so, the order slip is marked and the cataloguer is alerted that copy is available when the title is supplied.

Until automation of the cataloguing system takes place, it will not be possible to provide colleges with a copy of the Union Catalogue. After automation, colleges will have a copy of the State Union Catalogue in microfiche. This can then be used to assist in selection and preview of materials and as a location device for inter-library loans.

Processing

After cataloguing, cataloguing data and resource materials are separated.

Spine labels are typed from the call number marked on the item. Should there be more than 5 copies of the one item, spine labels are produced by a Wang Word Processer and later matched with the appropriate title.

Labels are printed on Avery Dextrux label tape and coated with clear drying glue. The labels are then virtually irremovable.

Packaging of AV materials, whether commercially or locally produced, must be such that all items can be safely integrated with the total collection. This will require the purchase of some packaging, e.g. heavy duty cardboard boxes. The costs involved in purchasing such packaging are minimal compared with the costs of purchase or producton of AV materials.

Loose book jackets are laminated and attached to books. In a production line type operation this process takes one assistant about 5 minutes per title comparing favourably with other book covering methods.

Dispatch

Titles are placed on the appropriate college shelves in the dispatch area. A regular check is made and materials will be sent when a box is filled, or more regularly if necessary. Three copies of a packing slip are prepared - one is retained at the State RMC - and two are sent to the college. The college checks the packing slips against the goods received and one copy is returned to the State RMC.

Production of catalogue cards: original cataloguing, NUC, CIP

A dummy card, marked with the title number, copy number/s and the college location/s is clipped to each tag sheet. Data is typed from the sheet on to the dummy card. In order that all cataloguing information can be included on as few cards as possible, it is essential that small face typewriters be used for typing catalogue cards. The cataloguer will have marked on the tag sheet the number of cards required. The typist will file the card according to this number.

National library cards

Main entry cards from the National Library, marked with the title number, copy number/s and college locations, will also be marked with the number of cards required by the cataloguer. The typist will type the call number noted at the bottom of the card in the left hand margin of the card. Cards are then filed according to the number of copies required.

Blackwells

Blackwells supply a full set of cards for every request filled. Since two copies of each set are required - one for the college and one for the State Union Catalogue, it has been decided to simplify processes and dispose of all but the main entry card from Blackwells.

This can be treated the same as cards from the National Library and original cataloguing cards.

Photocopying process

Six cards - NL, Blackwells or original cataloguing - are fitted into a plastic envelope, 10" X 9", according to the number of copies required. This master is then given an identification number. Masters are photocopied on to 10" X 9" 190 gsm board. The copier proposed for use is the U-BIX 750, this machine having proved itself the best capable of handling suitable library card stock. A comparative study of photocopiers capable of handling card stock, which was conducted by the Technical Education Division of the Education Department of Western Australia, supports this judgement (see Walkington, 1976, pp. 152-3).

Each group of sheets is marked with the corresponding master number to assist in collation of sets.

Collating sets

Sheets are guillotined and drilled. Each group of cards is matched with the appropriate card which is now removed from the plastic envelope.

Cards are sorted into sets and marked with the appropriate college location. SUC sets are also separated out. Single SUC cards with copy numbers and locations now updated are sorted from the master sheet.

NUCOM

Each time a new title is catalogued or another location is added to material already catalogued by State RMC, the National Union Catalogue of Monographs (NUCOM) is sent a single copy of the main entry card marked with appropriate locations.

Tracings

Main entries, added entries and subject headings are highlighted by a fluorescent yellow, broad tipped marking pen. Filing is by the word or words highlighted.

Subject added entries are filed behind subject guide cards which are produced whenever a new subject heading is established.

This method of highlighting instead of typing tracings will save a massive typing task in the State RMC. Should individual colleges feel that they would prefer to have all tracings typed at the top of the card, this can be done at the college.

Dispatch

No attempt will be made to match card sets with resource materials for dispatch.

Card sets will be forwarded to colleges on a regular basis. The college librarian can check against the third copy of the packing slip sent from the State RMC with the resource materials to ensure that card sets are received for all titles.

Accessibility of resources

A centralized cataloguing service aims to ensure that all resources are accessible to all students and staff. Provision of author/title and subject catalogues of locally held materials is the basis of this access.

Information on the availability of additional resources can be provided through the State Union Catalogue. Resources listed in State Union Catalogue may be borrowed for local use to meet a specific learning need or may be borrowed so that College RMC staff and teaching staff can preview resources with a view to purchase.

Resources should be made accessible through the catalogue by means of relevant subject headings and adequate cross referencing. Staff must be responsive to user's enquires to ensure that best use is being made of the catalogue and that additional subject headings and cross referencing are introduced if required.

Resource Sharing Networks

The State RMC could act in an advisory capacity in establishing resource sharing networks within TAFE, with other institutions in Queensland and between TAFE and other institutions in other states. The sharing of resources held in TAFE college RMCs in Queensland with other institutions will be facilitated by the distribution of the State Union Catalogue in Computer-Output - Microfiche (COM).

Staff development

The centralized services of the State RMC will provide or facilitate the provision of opportunities for staff development. Advice on the management and organization of individual centres will be offered to College RMC staff. Through liaison with the Staff Development Section, in-service programmes to assist teaching staff in obtaining the skills necessary to ensure efficient access to resources held in individual colleges and other institutions will be offered.

Integration

State RMC staff will participate in curriculum development and course development committees to advise on the availability of resources and to ensure that students and staff have the necessary skills to locate materials to support such courses.

C Tasks Relating to Production

Responsive agency

The ways in which the production section of State RMC will achieve its tasks will be by functioning as an agency responding to needs.

Establishment

The section will only be able to function at all if members of the section, on a person to person basis, and the section as a whole, are able to establish the confidence in all levels of users (individuals, colleges and educational systems), that it can assist in the achievement of their endeavours. With the limited personnel, equipment and money available to the section, this can best be achieved in two ways. Firstly, the production staff can help to establish solutions to communication problems which are assessed as having the greatest potential to establish this confidence.

Secondly, the staff can offer direction in the development of production skills and of the ability to apply them to communication problems.

Therefore the section will tackle many ad hoc problems, responding always to the needs of individuals, and always adopting the approach that the section exists to help users or clients meet their needs, by supplying only as much "expert" services as the user needs to do this.

It is hoped that this will ensure that what is produced by the section remains pertinent to the needs of the curriculum, to teaching needs, and to student needs.

Structure

Members of the production section are essentially only a link between those who experience the need, and the skills and activities they require to meet those needs.

They will function as links by running workshops to which participants can bring their needs, by participating in production teams and by acting as members of curriculum and course development committees. In this way it is hoped that the production of resources in general will be viewed as an integral part of the curriculum and of communication at the student level, and not as something available to be tacked on, nor alternatively as a service that some remote expert decides is universally applicable.

So the results of this approach will not be two separate roles for staff in the section. Each project will endeavour to produce resources and add to the development of staff in producing and applying resources.

Processes

The processes by which these ends will be achieved will depend

(a) on the continuous interaction between section staff members, teaching staff and curriculum and course development staff, and

(b) on the continuous assessment of programmes so that the production staff can supply the amount of technical expertise needed and can determine the strengths or weaknesses which need bolstering and developing.

An individual or group wishing to produce educational material may need to develop skills and knowledge in some or all of the processes involved in the production.

Definitions of communication problem

Initially the nature of the communication problem must be firmly established. Often this is not clearly articulated and a client may express a felt need by wanting to "make such and such a kind of programme on such and such". He must be guided into first returning to this essential diagnosis.

Determining learning objectives

It is only from this step that the learning objectives of the programme can be determined. These must be very precise statements which detail what the learner is expected to do when he has completed the programme.

Feasibility assessment

On the basis of these objectives a feasibility assessment should be instituted to determine whether existing locally accessible resources or more distant resources can meet these objectives, perhaps with adaptations. This capability is only possible with extremely close and flexible links between the production and bibliographic functions of the State RMC and members of staff involved in curriculum and course development. This assessment will determine if a target audience exists, if finance and production facilities exist for the media proposed, and if staff development will be achieved. Some of this pre-supposes the next step which is really occurring in parallel with the last step. At each interaction, as one process affects the other, assessment must be made.

Selection of media

The selection of the medium or media is often presupposed by the wording of the initial approach to the production section or resource centre. It is frequently influenced by personal preference, institutional bias, or the influence of advertising, salesmen and vogues rather than, more properly, the choice or design of software being dependent on the type of learning sought, the strategy selected for achieving it, the cost, the

flexibility of use, the target population, its adaptability, its compatibility with, or the availability of, hardware. This suggests that a third step exists in parallel with these two in the planning of strategy, which will influence, and be influenced by, the other two in turn.

Planning the structure of the programme

The strategy will manifest itself as the broad structure of the content of the programme. It will consist of headings representing the key concepts, will be organized, and will have connecting ideas, so as to obtain from the student maximum involvement and self discovery. This requirement will be developed more fully with the completion of a final shooting script written for the chosen medium or media. The shooting script is the final point in the planning stage. All that need to be added are techniques and processes to transform it into a product ready to be distributed. Scripting is, however a step often totally ignored and almost always superficially treated by people who, without proper guidance, propose to produce education programmes. Probably the greatest need for assistance to those making programmes is in this stage. However, it is perhaps the least recognized area of weakness, as it is easily overshadowed by the more obvious, and perhaps more enticing, problems of technically producing the images and noises which constitute the end product.

Scripting

Producing the programme

Evaluation

Seemingly the last step is to evaluate the success of the programme, to determine whether it has achieved its learning objectives. However this process should begin in the initial stages with the establishment of the learning objectives. Evaluation is thereby considered from the start, as part of the structure and strategy of the programme. The more evaluation is integrated into the programme the more likely it is to

be an accurate reflection of the programme's success. Also, the structure of the programme should be such that changes can be made in response to evaluation feedback by subject matter experts and media specialists and from student tryouts and pilot group tests.

To eliminate as many variables as possible, testing should be done on the best possible product in as close to its final format as possible.

Orientation

All these efforts are directed toward the user and his needs. The role of the production centre staff is to collaborate and consult, to expose the user to new ideas and innovations suited to his needs, and to provide guidance on the process of problem solving at any or all of these problem-solving stages.

The philosophy behind this user emphasis in production is two-fold. The most effective way for users to develop the necessary abilities and understanding to produce educational materials is for them to discover and solve the problems as they arise during the real production process. Self-initiated and self-applied innovation will have the strongest user commitment and therefore the best chance for long term survival.

Centralized production - video

Video production equipment has been purchased for the high quality production and reproduction of colour video cassette tapes to support the learning situations in the Technical Colleges.

It is considered that efficient and effective video production can best be achieved by establishing facilities for high quality production within the State RMC for TAFE and, therefore, within the Curriculum and Evaluation Section.

The physical and functional integration of the expertise in media production with that of curriculum development will facilitate the establishment of an effective communication network which will continuously relate the real student needs to the development and production processes.

The close relationship which can be established between the production team and the specific learning situation will result in the production of highly effective learning resources.

Colour video cassette tapes will be produced and master copies will be held in the 1 inch format. Copies for distribution to the College RMCs will be produced in the 3/4 inch U-matic format. Production will occur in the State RMC and within the colleges. As well as producing video tape programmes, the production section of the State RMC will reproduce 16 mm film, 8 mm film and 35 mm slides onto colour video tape by means of a telecine chain, when copyright is available.

These facilities will allow the State RMC to provide for each College RMC, a library of video cassette tapes and thereby solve the problems presently encountered by colleges in borrowing film.

D Tasks Relating to the Resource Collection

The State RMC Resource Collection will meet a variety of information needs. It is to be expected that these needs will vary over a period of time as the users of the resources become established and as new users are able to utilize the service. It is not intended to duplicate resources readily available from other sources such as College RMCs.

Initially, the main beneficiaries of this service will be officers of the Technical Education Branch who will be thus assisted in carrying out their various functions. Such assistance will be provided through materials held in the Resource Collection, through inter-library loans, and through a reference service based on the State RMC as a clearing-house for information from within and from without the state.

With changes in curriculum design and learning methods, increasing demands will be made for research information to support such approaches.

The second major group of users who will utilize the service will be the colleges. As College RMCs become better staffed, they will make greater demands on the Resource Collection.

It may be possible - after a period of time - to make the resources and services more accessible to groups such as those involved in industry and commerce.

To support the above, the Resource Collection will consist of specialized materials, materials which are too expensive or too infrequently used to warrant acquisition by others and resources which must be purchased for evaluation. A variety of non-book software falls into the latter category. These may be purchased for previewing by Branch staff initially, and, if considered suitable, included in subject bibliographies sent to colleges. If any college wishes to preview the materials before purchase, an inter-library loan may be requested.

The nature of serials (the immediacy of the information they contain, particularly in the technological and vocational areas; the need to establish holdings; and

the growing expense of these) make it desirable that titles not readily available in colleges be obtained by the State RMC and recorded in such a way that access to information is at a maximum.

Access to the Resource Collection serials will be through the *Periodical Holdings* monthly publication which will contain a copy of the contents page of each periodical received by the State RMC during the preceeding month. Photo-copies of articles may be requested by the teaching staff of the colleges through the college RMC librarian in accordance with copyright requirements.

The organization of the collection will be consistent with that of the College RMCs. All resources held will be listed in the State Union Catalogue.

Conclusion

While recognizing the integrated nature of many of the tasks and the consequent overlap, which is not only unavoidable but advantageous, it is considered that the tasks will be most effectively performed by organizing the division of responsibilities into four sections - Acquisitions, Technical Services, Production and Resource Collection.

The extent to which the tasks are facilitating the achievement of the aims and objectives must be constantly evaluated in the light of changing needs. This evaluation will provide the feedback necessary for the implementation of changes in the task itself, or in the organization of the tasks within and between the sections.

12 Proposals for the Automation of Acquisitions and Technical Services Operations

Investigations are currently being made into the possibility of automating the Acquisitions and Cataloguing operations of the Bibliographic Centre. It is planned to co-operate with the State Library of Queensland in developing a sub-system using the Sperry Univac 1142 to be acquired by Queensland Government Treasury in mid 1977. Current proposals for this are outlined below.

Selection and input

Following receipt of requests for orders from individual colleges, information will be input to the sub-system. It is anticipated that the required data will be ISBN, author, title, publisher, number of copies, supplier code, the college for which the title is being ordered, anticipated cost per volume and the vote against which the cost is to be committed.

The next step will be to assign a title number which will become that title's identifier throughout the rest of the system. It will be necessary to check existing records to determine whether the title has previously been acquired. If so, additional orders are given the same title number as the title already held. For new titles, the system will allocate a new title number.

Obtaining MARC records

For titles which do not duplicate anything in the existing collection the sub-system will generate orders for MARC

records which will include both ISBN and the locally assigned title number. These orders will be forwarded on magnetic tape to the National Library's MARC Record Service. A file of these orders will be maintained, together with the date of request, and as tapes of MARC records are returned, the appropriate ISBN will be removed from the MARC order title. In this way, the sub-sytem will be able to advise those ISBN's for which MARC data is not available.

For those titles a manual check would be made in Blackwells Title Index and an order listing the Blackwell Title Number and the local title number will be sent on magnetic tape to Blackwells. This file would be maintained in the same way as the National Library of Australia MARC Record File.

For those titles for which no catalogue record is available, staff will have to provide full cataloguing information either from Cataloguing-in-Publication data or from original cataloguing.

Production of orders and the order file

At regular intervals the sub-system will process orders. Accumulated orders will be sorted by the supplier, assigned an order number and the order will be printed. This data will be input to the Order File, which will hold all outstanding orders. The information will remain on file until the titles ordered are filled or the order is cancelled. The sub-system will need to provide a list of outstanding orders periodically so that staff can decide which should be cancelled.

Receipt of goods

Books are received and checked against the invoice or packing slip. Details of the titles received are input to the sub-system, which will check that the order number and the supplier coincide, that the items are still

outstanding and that the ISBN of the volume supplied matches that ordered. If any of these conditions is not satisfied, the details will be reported so that appropriate action can be taken.

Cataloguing check — During the time that it takes for an order to be filled, the MARC record for that title will have been obtained, if one is available. The Master File will be checked for bibliographic data and a printout will be provided for the title either with MARC data or with very little information, alerting staff that original cataloguing is required.

Copy numbers — On ordering, each title would have received a unique identifier. When the title is received, a copy number will be assigned. This title number and copy number together with the details of location obtained from the Order File, will become the unique identifier of that copy of the title.

Accessions file — The information required to maintain the Accessions File will be input at the time titles are received at the State RMC. For each title, an accessions file will record brief author and title information, ISBN, title number and copy number/s, date received, price paid, location of copy or copies and vote against which each copy is to be debited.

Expenditure and commitments analyses — The sub-system will provide statistical analyses as required. The Orders File will provide information on commitments per college. The Accessions File will provide details of actual expenditure.

Cataloguing requirements — The sub-system will need to produce Author-Title, Subject and Shelf List Catalogues for each college and the same data will need to be combined in the State

Union Catalogue. In addition, a Subject Authority File and a Name Authority File will be maintained for the Bibliographic Centre.

Sources of cataloguing data

The Master File will provide the information to be printed in the various catalogues. For each title in the collection, there will be a record on the Master File which will contain bibliographic details according to the Australian MARC Specification. For data received from either the National Library of Australia or Blackwells all details received will be kept on the Master File. Data received from Blackwells will be in LC MARC format. This will have to be converted to AUS MARC. For local cataloguing input, the same amount of detail may not be necessary.

Author-Title catalogue

The sub-system will be required to generate as many entries in the catalogue as the bibliographic data indicate are necessary, that is, main entries, added entries, analyticals and reference entries.

Subject catalogue

This catalogue will include all subject headings used in cataloguing titles in the individual collection, together with their associated "see" and "see also" references.

At this stage no decision has been reached regarding the amount of detail to be included in the Subject Catalogue. The catalogue could simply be a list of all the titles which have been catalogued as containing that subject matter or, it could contain the full entry for each title at that subject heading.

Shelf-List catalogue

This catalogue will contain, in call number order, details of the total library collection of the individual college - fiction, non-fiction, reference, periodicals.

State Union Catalogue

The State Union Catalogue will consist of an Author-Title and a Subject Catalogue which will include all titles held in all colleges throughout the State. The details contained will be the same as the college catalogues, with the addition of a list of holding locations below each title.

Physical format

The medium of these catalogues has not finally been decided. Certainly, the State Union Catalogue will be in microfiche, as it is intended to distribute this throughout the colleges and to any other interested institutions. The medium of the college catalogues is still being studied. The choice will be between a card catalogue and a microfiche catalogue.

Conclusion

Automation of acquisitions functions will facilitate efficient placement of orders and will provide up-to-date analyses of commitments and expenditures. Staff will be alerted to oversupply and outstanding orders.

Automation of cataloguing procedures will ensure that materials are processed speedily and that all cataloguing data are held in the standardised Australian MARC format. Up-to-date records of all resources held in all colleges will be maintained.

Through automation, the time required to complete technical tasks will be significantly reduced.

13 The Future

Choice

Choices relating to the role and services provided by the State RMC, which will be open for the future, will depend to a great extent upon the policies being made today, and on the extent to which planning involves the interrelationships between all the parts of the system. Policy making should continue to relate to a preferred future for mankind, for the education system, for the TAFE system of Australia and for the TAFE system of Queensland.

Futures research

Futures research, which attempts to provide a basis for the rational selection of present actions, will involve studies of past changes, trends and cycles, the causes of change, and the possibilities and probabilities for the future. It must also study the preferences of individuals, groups, and the human race as a whole in order to throw light upon possible, probable and preferred futures.

Planning horizons

In discussing the selection of planning horizons for futures research, Earl C. Joseph (1974) suggests that the future may be divided into five basic periods.

1 the immediate future: now and the next year.
This near future is largely uncontrollable because it is dictated by the past.

2 the short-term future: the next 1 to 5 years.
This period is partially controllable by today's choices, but major efforts are needed to create major changes.
3 the middle range future: the next 5 to 20 years.
In this time frame, choice over alternative opportunities which the future offers is available, *if awareness of alternatives is present.*
4 long-range futures: the next 20 to 50 years.
This planning horizon offers an open future, but is largely uncontrollable from today, except that the seeds of opportunities or crises can be planted.
5 far futures: 50 years and beyond.
This future time is largely invisible and therefore uncontrollable from today.

Futures research will therefore be most effective if it is directed towards assessing possible and preferred futures in the 5 to 20 year time frame.

On-going evaluation of the role and services of the State RMC will provide the feedback necessary for determining changes which need to be made in the functions and operation of the service.

Planning in the 5 to 20 year time frame will involve consideration of:
(a) the future preferred for TAFE in Queensland from 5 to 20 years hence;
(b) the role of the RMCs in the system; and
(c) the consequent role of the State RMC in providing services in response to needs.

In the future, decisions to decentralize some of the functions of the State RMC could be seen as desirable.

Factors which are likely to influence the move towards or away from decentralization are:

Staffing

1 Staffing with respect to

(a) economy: How can full utilization of staff at a level demanded by their training and salary be achieved?

(b) time: What are the factors involved in the efficient use of staff time? The questions of specialization in relation to boredom, individual responsibility and cooperative effort must be assessed.

(c) personal growth: To what extent does the provision of centralized services hinder or encourage professional growth and the need for autonomy in the employee?

(d) local employment Is trained RMC staff available in the area to perform the required functions? What local training opportunities are available or could be made available?

(e) community expectations: In which ways can the staffing of TAFE RMCs fulfill the expectations of the community with respect to the community's need for learning resources and information?

Cost-effectiveness

2 Cost-effectiveness

(a) comparison of costs for centralized and decentralized ordering, technical services, production and information retrieval;

(b) factors affecting the economic utilization of staff;

(c) availability of greater discounts for large orders;

(d) comparison of transport charges direct to the college with those to the State RMC and then to the college;

(e) comparison of initial and repair costs for processing equipment located centrally with that located in each college;

(f) the extent to which the use of the computer can be decentralized and still remain cost effective;

(g) budgetary control for expenditure of State and Federal funds.

Time

3 Time, with respect to

(a) the speed of receipt of materials from publishers;

(b) the speed of receipt of fully processed orders through the State RMC;

(c) the availability of materials used for processing;

(d) the extent to which the comparative differences are significant.

Standardization

4 Standardization

(a) the advantages and disadvantages in standardization of ordering cataloguing and processing;

(b) the advantages and disadvantages of standardizing audio-visual equipment and software.

Growth patterns

5 Growth Patterns

(a) At what stage in the development of a college, does it become advantageous to achieve autonomy?

(b) Does autonomy for a college imply autonomy in all operations of the RMC?

(c) Does autonomy necessarily preclude centralized services?

(d) Is it feasible that centralized services be provided by larger colleges within a State network?

Conclusion

Futures research is likely to be most effective if it attempts to assess possible and preferred futures in the 5 to 20 year time frame.

If policy decisions are flexible and open-ended, then future choices in line with future needs will be available.

Continuous evaluation of the role and services of the State RMC, through the organization of suitable feedback, will allow the Centre to judge the extent to which the aims and objectives are being achieved and the extent to which they need to be adjusted to reflect the aims and objectives the TAFE system in Queensland.

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